



-1-

<110> Lightfoot, David  
Meksem, Khalid

<120> ISOLATED POLYNUCLEOTIDES AND POLYPEPTIDES RELATING TO LOCI  
UNDERLYING RESISTANCE TO SOYBEAN CYST NEMATODE AND SOYBEAN  
SUDDEN DEATH SYNDROME AND METHODS EMPLOYING SAME

<130> 1268/4/2

<150> 60/178,811  
<151> 2000-01-28

<160> 122

<170> PatentIn version 3.0

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*per paper*

F //

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agagaggaag gacccgttc aaagcaacgg ggacaacttt agagccctgg cgccgtggg 300  
ggtaataag cgtaacctgg ctgaggagag cctcgccgc gtccttgctg aagcagaaga 360  
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35 40 45

Gln Gly Leu Arg Lys Leu Ser Leu His Asp Asn Gln Ile Gly Gly Ser  
50 55 60

Ile Pro Ser Thr Leu Gly Leu Leu Pro Asn Leu Arg Gly Val Gln Leu  
65 70 75 80

Phe Asn Asn Arg Leu Thr Gly Ser Ile Pro Leu Ser Leu Gly Phe Cys  
85 90 95

Pro Leu Leu Gln Ser Leu Asp Leu Ser Asn Asn Leu Leu Thr Gly Ala  
100 105 110

Ile Pro Tyr Ser Leu Ala Asn Ser Thr Lys Leu Tyr Trp Leu Asn Leu  
115 120 125

Ser Phe Asn Ser Phe Ser Gly Pro Leu Pro Ala Ser Leu Thr His Ser  
130 135 140

Phe Ser Leu Thr Phe Leu Ser Leu Gln Asn Asn Asn Leu Ser Gly Ser  
145 150 155 160

Leu Pro Asn Ser Trp Gly Gly Asn Ser Lys Asn Gly Phe Phe Arg Leu  
165 170 175

Gln Asn Leu Ile Leu Asp His Asn Phe Phe Thr Gly Asp Val Pro Ala  
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Ser Leu Gly Ser Leu Arg Glu Leu Asn Glu Ile Ser Leu Ser His Asn  
195 200 205

Lys Phe Ser Gly Ala Ile Pro Asn Glu Ile Gly Thr Leu Ser Arg Leu  
210 215 220

Lys Thr Leu Asp Ile Ser Asn Asn Ala Leu Asn Gly Asn Leu Pro Ala  
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Thr Leu Ser Asn Leu Ser Ser Leu Thr Leu Leu Asn Ala Glu Asn Asn  
245 250 255

Leu Leu Asp Asn Gln Ile Pro Gln Ser Leu Gly Arg Leu Arg Asn Leu  
260 265 270

Ser Val Leu Ile Leu Ser Arg Asn Gln Phe Ser Gly His Ile Pro Ser  
275 280 285

Ser Ile Ala Asn Ile Ser Ser Leu Arg Gln Leu Asp Leu Ser Leu Asn  
290 295 300

Asn Phe Ser Gly Glu Ile Pro Val Ser Phe Asp Ser Gln Arg Ser Leu  
305 310 315 320

Asn Leu Ser Asn Val Ser Tyr Asn Ser Leu Ser Gly Ser Val Pro Pro  
325 330 335

Leu Leu Ala Lys Lys Phe Asn Ser Ser Phe Val Gly Asn Ile Gln  
340 345 350

Leu Cys Gly Tyr Ser Pro Ser Thr Pro Cys Leu Ser Gln Ala Pro Ser  
355 360 365

Gln Gly Val Ile Ala Pro Pro Pro Glu Val Ser Lys His His His His  
370 375 380

Arg Lys Leu Ser Thr Lys Asp Ile Ile Leu Ile Val Ala Gly Val Leu  
385 390 395 400

Leu Val Val Leu Ile Ile Leu Cys Cys Val Leu Leu Phe Cys Leu Ile  
405 410 415

Arg Lys Arg Ser Thr Ser Lys Ala Gly Asn Gly Gln Ala Thr Glu Gly  
420 425 430

Arg Ala Ala Thr Met Arg Thr Glu Lys Gly Val Pro Pro Val Ala Gly  
435 440 445

Gly Asp Val Glu Ala Gly Gly Glu Ala Gly Gly Lys Leu Val His Phe  
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Asp Gly Pro Met Ala Phe Thr Ala Asp Asp Leu Leu Cys Ala Thr Ala  
465 470 475 480

Glu Ile Met Gly Lys Ser Thr Tyr Gly Thr Val Tyr Lys Ala Ile Leu  
485 490 495

Glu Asp Gly Ser Gln Val Ala Val Lys Arg Leu Arg Glu Lys Ile Thr  
500 505 510

Lys Gly His Arg Glu Phe Glu Ser Glu Val Ser Val Leu Gly Lys Ile  
515 520 525

Arg His Pro Asn Gly Leu Ala Leu Arg Ala Tyr Tyr Leu Gly Pro Lys  
530 535 540

Gly Glu Lys Leu Leu Val Phe Asp Tyr Met Ser Lys Gly Gly Leu Leu  
545 550 555 560

Leu Phe Tyr Met Glu Gly Ser Cys Ala Gly Ser Phe Ile Lys Val Leu  
565 570 575

Cys Val Leu Val Phe Asn Tyr Asn Leu Glu Phe Tyr Leu Ser Asn Leu  
580 585 590

Tyr Asn Ser Asn Arg Arg Thr Val Gln Thr Lys Thr Pro Lys Glu Gln  
595 600 605

His Leu Xaa Phe Asn Ile Pro Tyr Gln Xaa Ser Glu Ile Phe Ser Trp  
610 615 620

Ser Ser Xaa Cys Arg Gly Asn Xaa Thr Phe Ile Ile Gly His Lys Met  
625 630 635 640

Lys Ile Xaa Gln Asp Leu Ala Val Ala Cys Ser Pro Ser Phe Pro Glu  
645 650 655

Thr Ser Tyr Met Asp Leu Xaa Ser Ser Asn Val Cys Xaa Xaa Asn Xaa  
660 665 670

Met Leu Lys Leu Gln Phe Trp Ser Phe Ser Val Asp Val Asn Cys Cys  
675 680 685

Xaa Phe Gln Arg Asp Ser Tyr Ser Trp Ser Ile Gly Ile Pro Gly Thr  
690 695 700

Xaa Ala Leu Lys Ala Gln Glu Ser Lys His Xaa Asn Xaa Tyr Leu Gln  
705 710 715 720

Ser Trp Cys Tyr Leu Val Arg Thr Pro Asn Glu Glu Ile Thr Trp Gly  
725 730 735

Val Tyr Glu Trp Thr Arg Phe Ala Ser Val Gly Cys Leu Ser Cys Gln  
740 745 750

Arg Gly Val Asp Lys Xaa Gly Phe Xaa Cys Arg Leu Asp Glu Arg Cys  
755 760 765

Ile His Ser Trp Arg Arg Val Ala Lys His Val Glu Ala Arg Phe Ala  
770 775 780

Leu Cys Xaa Ser Phe Ser Ile Ser Thr Thr Arg Ser Ser Ser Ser Ser  
785 790 795 800

Pro Ala Ala Gly Arg Asp Xaa Thr Arg Glu Ile Ser His Ser Gln Ser  
805 810 815

His Leu Pro Gly Arg Pro Leu Glu Pro Tyr Ser Glu Ser Tyr  
820 825 830

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caagtttcag gacaagtaat gcagaattat ggaaaagcaa tctgactaag aaaaaagagc 180  
ttcagagatt aacagaaaat agtgagccag aaaaaagatt gcgagacaga aattggtcgc 240  
caacaaaaag ttgtctcttt tataattttt aattgaaatt ttcttaattt agctaacatg 300  
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naatct 726

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gacaaaattg	gccaaacttca	aggcctcagg	aagcttagtc	ttcatgataa	ccaaatttgtt	180
ggttcaatcc	cttcaacttt	gggacttctt	ccaaacctta	gaggggttca	gttattcaac	240
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ctttattggc	ttaacttgag	tttcaactcc	ttctctggc	ctttaccagc	tagcctaact	420
cactcattt	ctctcacttt	tctttcttctt	caaataaca	atcttctgg	ctcccttcct	480
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<213> soybean

<220>

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atcacccaca aaattggcca acttcaaggc ctcaggaagc tttagtcttca tgataaccaa 180

attggtggtt caatcccttc aactttggga cttcttccc accttagagg ggttcagtt 240

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taactcactc attttctctc acttttcttt ctcttcaaaaa taacaatctt tctggctccc 480

ttcctaactc ttggggnggg aatttcaaga atggcttctt taggcttcaa aatttcatcc 540

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tgagaattcc cttagtcattn ataagnnttag tggagcttcc caantgaaat anggaccct 660

tntaggctta aacactngnc attctaataa tgccttgaat gggAACCTCC ctgttccctc 720

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accgacaaaaa ttggccaaact tcaaggcctc aggaagctta gtcttcatga taaccaaatt 180

ggtgtcaat cccttcaact ttgggacttc ttccaaacctt agaggggttc aagttattca 240

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tagcataata agttaggggg gcttnccaa agnaatagga nccttnat ggtaaaaaac	660
ctggcatttt taaaatgcct tgaangggac ttgnccgctn cccctntaat tatccncctt	720
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<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 20 gaatgggagg agtggaaag acagtggcta tggagctgt tccggaggaa gggttggaaat	60
caagtgtgct cagggacagg ttattgtat ccagttcct tggaaaggaa tgaggggtcg	120
aatcaccgac aaaattggcc aacttcaagg ctcaggaag cttagtcttcc atgataacca	180
aattgggttgt tcaatccctt caactttggg acttcttccc aaccttagag gggttcagtt	240
attcaacaat aggcttacag gttccataacc tctttcttta ggtttctgcc ctgttca	300
gtctcttgac ctcagcaaca acttgctcac aggagcaatc ctttatagtc ttgctaattc	360
cactaagctt tattggctta acttgagttt caactccctt cttggcctt taccagctag	420
cctaactcac tcattttctc tcactttctt ttctcttcaa aataacaatc ttctggctc	480
ccttcctaac tcttgggtg ggaattccaa gaatggcttc tttaggcttc aaaatttgat	540
ccttagatcat aacttttca ctggtgacgt tcctgcttct ttgggttagct taagagagct	600
caatgagatt tcccttagtc ataataaagt ttaatggagc tataccaaat gaaataggaa	660
ccctttctan gcttaaacac ttgacattttaataatgnc ttgaatggaa acttgccgtc	720

taccctctnt aattatcctn cttacactgn tgaatgcaaa aaacaacctc ttgcaataaa 780  
tcccttaan ttangnnaat gggaaanttn tttntgattt gagtnaaacc aattaatggc 840  
atattntta acatttaaan t 861

<210> 21  
<211> 761  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 21  
gaatggagg agtggaaag acatgggtt gaaggctgt acccacatag ttgaatattt 60  
cccacaaatg agcttgagtt aaatttcttg gcaagcagag gggggacaga acctgagagg 120  
ctattgtagg aaacattgaa gggatttaga ctgcgctgac tgtcaaagga gactggaatt 180  
tctccactga aattattcag tgacaaatca agctgcctaa gcgaggaaat gtttcaatg 240  
cttgaaggaa tatgtccact aaattggttt ctactcaaaa tcagaacaga aagattacgc 300  
aatctaccta aactttgagg gatttgattt tcaaggaggt ttttctctgc attcagcagt 360  
gtaagtgagg ataaattaga gaggtagca ggcaagttcc cattcaaggc attattagaa 420  
atgtcaagtg tcttaaggct anaaagggtt cttttcat ttggatagc tccctaaact 480  
tattatgact aagggaaatc tnattgagct ctnttaactc ccaaagaaca ggacgtncca 540  
gtaaaaaaagt atnatctagg atcaaatttg aacctaaaaa gcattttgga tccccccaaa 600  
gttaggaagga gcanaagatg tnttnaaaa anaatanaa aatata>tag tactgtaagc 660  
naaaagggtga ctaatagcat aantatgata caaatttagga tttcttanaa ttttttnnaa 720  
aatnnnnangn aaccaaaaaa gngacntncn tttnaanacc c 761

<210> 22  
<211> 856  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 22  
aatgggagga gtggaaaga cagtggctat ggagcttgg ccggagggtt ggttggaaatc 60

aagtgtgctc	agggacaggt	tattgtgatc	cagcttcctt	ggaagggttt	gaggggtcga	120
atcacccaca	aaattggcca	acttcaaggc	ctcaggaagc	ttagtcttca	tgataaccaa	180
attgggtggtt	caatcccttc	aactttggga	cttcttccc	accttagagg	ggttcagtt	240
ttcaacaata	ggcttacagg	ttccataacct	ctttctttag	gtttctgcct	ttgcttcaag	300
tctcttgacc	tcagcaacaa	cttgctcaca	ggagcaatcc	cttatagtct	tgctaattcc	360
actaagctt	attggcttaa	cttgagttc	aactccttct	ctggcccttt	accagctagc	420
ctaactcact	cattttctct	cactttctt	tctcttcaaa	anaacaatct	ttctggctcc	480
cttcctaact	cttggggtgg	gaattccaaag	aatggcttct	ttaggcttca	aaaattgatc	540
ctagaacata	actttttac	tggtgacgtt	cctgctttt	ttggtaggct	taaaganaag	600
ccaaatgagaa	tttccttagt	catnataaaag	ttaaggggag	ctttnccaa	ataaaaaaag	660
gaaccctttn	taggcttaaa	nanacttgac	aattntaat	aatgccctt	aatngggAAC	720
ttgcctgcta	ccccctttaa	tttacccctac	ttaccctgnt	ngaaggccaa	naacaacccc	780
tttgcaataa	aaaccnnaaa	gttaagggga	angnggnact	ttntntctnn	tttngggnaa	840
accantann	ggcnct					856

<210> 23  
<211> 826  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 23	gaatgggagg	agtggaaag	acatggggtt	gaagggttgt	acccacatacg	ttgaatattt	60
	cccacaaatg	agcttgagtt	aaatttcttg	gcaagcagag	ggggacaga	acctgagagg	120
	ctattgtagg	aaacattgaa	gggatttaga	ctgcgctgac	tgtcaaagga	gactggaaatt	180
	tctccactga	aattattcag	tgacaaatca	agctgcctaa	gcgaggaaat	gttgcaatg	240
	cttgaaggaa	tatgtccact	aaattggttt	ctactcaaaa	tcagaacaga	aagattacgc	300
	aatctaccta	aactttgagg	gatttgattt	tcaaggaggt	tgttctctgc	attcagcagt	360
	gtaagtgagg	ataaaattaga	gagggttagca	ggcaagttcc	cattcaaggc	attattagaa	420
	atgtcaagtg	tcttaagcct	agaaagggtt	cctatttcat	ttggtatagc	ttcactaaac	480

ttattatgac taanggaaat ctcattgagc tctcttaagc tacccaaaga agcaggaacc	540
gtcaccagtg aaaaaagtta tgatcttagga tcaaattttg aacctaaaaa accattcttg	600
gaattccacc ccaagaatta ggaaggggagc canaaagatt gttatttga aaaaaaaaaaaga	660
aaagtgagaa aaaatgagtg agttaggctt actgtaaaa ggaccaaaaa aaggantttg	720
aaactnaan ttaanccaat aaaacttaat ggnaataaca aanacttta nggaattctc	780
tttnaacaa attnttnctt angncaaaaa anttaancaa aggnct	826

<210> 24  
<211> 571  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 24	
tgggactggc tgtgactgat ctctctggc taatctttc cagctgctgg agaacttgat	60
gaacttctgg tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt	120
ttagcaactc gtcgccaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat	180
ttgtccactc ctcttgaca actgaggcaa cccactgagg caaatctagt ccattcatag	240
acaccccagg tgatttcctc gttaggagtt ctaacaagat aacaccaaga ctgtagatat	300
cagtttagt gtttgcttc ttgagcttg agagctcagg tgcccggtat cccaatgctt	360
cagctgtgc tatcacgttg gaattagcag cagttgacat caaccgagaa agaccaaaaat	420
ctgcaatttt agcatttyna ttctcattaa acaacacaat gntggatng anggtnccat	480
ggatgaaggt cttctngna agnaagnaaa acaaagcacc gggccaaggn ttgggctaatt	540
ttcaaccttg gggggcaaac naanaaatgt t	571

<210> 25  
<211> 727  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 25	
ttacaactag tgttatcgga gaatgaaaaa ttgaagaata ataagttcag ctataataaa	60

ctcgagggag	gaaaaacaaa	gaaattcatg	ataaatagat	ataacttatt	aaatttaagg	120
ggtgtatttg	cacaccctga	attatagaga	ttcttatatc	tttgagaaaa	taattaaatt	180
ggaaaaaaag	agataatgac	tgattgagat	ttgcctcaga	attgttcgtt	ttaatattgg	240
tacgaatcta	atggtttat	cctgaaagat	gctcacaagt	attgagggac	taataaattg	300
tttataaact	actactaaat	gagatgagac	tttaaggtgt	actgaagcaa	tatcatttaa	360
aaaatgacta	ctcgtatttg	tgttgagaaa	atttattttc	aatgaaaaga	aaatatatac	420
atataagata	aagtaattaa	cataaccgaa	aggaaataaa	atgcaacatt	ataaaaacta	480
caactatata	aatgatatat	acaactccta	gcacatgcat	tggattgtga	attaattaaa	540
atgttgtatg	gatggtaaaa	attcaaaact	aaacccccc	caatttaagt	gacacagaat	600
ataattagcg	gtggctttt	tacagaaacg	acgagaacaa	aggtgtcaaa	ggaaaggaga	660
tggatgcatg	tggatgagc	tcatncaatt	ccaacctgtt	gtggacccaaa	gccgaagtcc	720
ttgacnn						727

<210> 26  
<211> 560  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 26	attacgcnag	ctctatacga	ctcactatag	ggagacaagc	ttgcatgcct	gcaggtcgac	60
	tctagaggat	ccccgggtac	cgagctcgaa	ttcccaatgc	cagagcttcc	ctatcggtgg	120
	ccccacctat	gaagaataca	cccacgttga	aatacatgtt	gttgggttg	gacgcgcccc	180
	gccgagagtg	ccggtccacg	agtatcccc	acgtgcattgg	cgcatgcgt	tgaaacctag	240
	tattcatctt	cctgatggag	gcagccacgt	gtccgacaag	gtcaatgttgc	ccgtttcggt	300
	gaaaaggat	gataatgaaa	ggcaccatat	tgtcttgggc	gagggtgaaa	atggcgctgt	360
	gcatgctctt	gtaaggtgcc	acgttgatgt	agggaaagaac	cttgactggc	ccacttgagt	420
	tgttggagta	gtttcgaag	gcttgcattga	tgtgggttgt	gttgggttaa	ttcacagaca	480
	agaattttct	gngaccctgt	tctatgtttt	atgggaagga	gaatgggtgc	ctttccccca	540
	cnagctngat	nagnggact					560

<210> 27  
<211> 630  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 27  
actgcatgca tgcaagcaaa tttaacttta cacaacacac caccagagtg taagctgttt 60  
cataaaaaat gattgttgc ggcttcgga tcacaaggct tgtagtat tcgtaagaa 120  
agaaaagaaaat aggtgataaa taaagtggat agaaacataa aagaaaggaa taaagtaatg 180  
aaaataaggg agaagtagaa taatggaaat agataagaaa tagaatggat tcgatagtagat 240  
atctagtttta agagaaataa gaaaaataa gaacaagaaa aaaaattgca ttttaatttt 300  
ttatgttac tgtatcgatg attggcacga gattataagt ttttttttc gtgttaccg 360  
ttgaaggatt atatatcata ccatttgtt gtcaaccaac acggaacttt aagtctcttg 420  
atgttcaaaa gcactaaaaa ctaaggaatt ttacatcata ttatcgatc gttagactgat 480  
acaggatttt aagcctatat atctagcatt gatccggttt gcaatcaata tcacattaat 540  
gatcggtaaa ccattcatat aaccctttt attggtcaag aaatggcttt atgaatcccc 600  
ggattgagcc cagaancagg ngatactagn 630

<210> 28  
<211> 756  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 28  
atggcttaa cttgagtttc aactccttct ctggccttt accagctagc ctaactcact 60  
cattttctct cactttctt tctcttcaaa ataacaatct ttntggctcc cttnctaact 120  
gtgggggggg gaatancaag ggnggctta ggctgcaaaa tttgatccta gatcataact 180  
ttttcactgg tgacgttcct gcttcttgg gtagcttaag agagctcaat gagattcccc 240  
ttatgcataa taagtttagt ggagctatac caaatgaaat aggaaccctt tctaggctta 300  
agacacttga catttctaat aatgccttga atgggaactt gcctgctacc ctctctaatt 360

tatcctca	tacactgctg	aatgcagaga	acaacctcct	tgacaatcaa	atccctcaaa	420
gtttaggt	attgcgtact	cttcctgtt	ccgattttga	gtagaaacca	atttagtgga	480
catattcctt	caagcatngc	nnacatttcc	tcgcttaggc	agcttgattg	tcactgaata	540
attcagg	tgagaaattnc	agtctnctt	gacagtcagc	gcagtctaaa	tcttcttcaa	600
tggttnctac	aataggcctc	tcagggtctg	gcccccctt	gnntggccaa	gaaanttaa	660
cttaagctta	tttggngggg	aanattcaa	ctatgggggg	acncggccct	ttaaacc	720
gggntttcc	caggttcctt	ccaagggn	gc anttgt			756

<210> 29  
<211> 566  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 29	gacccttgtt	ctatagaacc	gaattcgagc	tcggta	ccccgg	gggatcctct	agagtcgacc	60	
	tgca	aggcatg	caagcttatt	attactacta	ctacttatct	tcactccacc	acactgtgtc	120	
	actaaaaccg	gaaccatccc	catac	aaaat	tctactgaag	acaacatatac	ccccaaatatt	180	
	cccaatgcat	cagcgttctc	catgaaagtt	gtcatttctt	ttccattcaa	agatccatca		240	
	ttgtggcgcc	ttcccaccat	cacaagatca	tagttcctt	ccaaactatg	cactgcttcc		300	
	aacac	cttcca	ccccatcg	caccgtaa	tcgtaccaac	aaacgttacc	aatgccat	360	
	ttcatgctct	tgaactcg	tc a	attaaccc	tcgtccaaca	tggtatctc	ctttcctct	420	
	tcacgctctt	ctcttgc	aaa	ataattttac	aaccacacgg	tttcttg	gtc acgataacaa	480	
	accta	aaacaa	gctacc	ctcg	tatctgcac	ctccgcattc	gaattccaa	tgccagagct	540
	tcc	cattatcg	gg	gncccacc	tatgaa			566	

<210> 30  
<211> 673  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 30  
gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatg 60  
aac ttctgggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgttt 120  
tag caactcg tcgccaactg tggatgc atc tctcatcaag tctgcataa aaaccttatt 180  
tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatcttagtc cattcataga 240  
caccccagggt gatttcctcg ttaggagttc taacaagata acaccaagac tgtagatatc 300  
agtttttagtg tttgctttct tgagctttt agaagctcag gtgcccggta tcccaa atgc 360  
ttccagctgt agcttatcac cg tgggaaat taagcagcaa gttggacatt caacccggag 420  
naaaagaccc aaaaatttt g caaatttttta agcaatttng gnanttcttn aatcaaggcc 480  
aaccaccaat tggnttggga atggtggaaag gg tttccccca atggtaattt gaagggtttc 540  
ttccctnggg gaaaatggaa aggggcaana aaacaaaggc ccaacnnggg ccccaaaggt 600  
nttttggggg ctttattttt tncnaatncc ct tgggnng ggncccaa at tcnaa antgg 660  
aaattggntt tnn 673

<210> 31  
<211> 736  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 31  
gtgnntagn tgcactatag aatncgaatt caatttacac atttttaatt ttttgcattt 60  
gtattctatt ttttcataaa ttctaatctt gctaataatt tcaattcata ttaagatcgg 120  
taaatagaaa atctagaaaa aaaaacaaaa aaagtatttt ttttcattt attttatattt 180  
caattgattt gtcactaaca aactgattcc tcttaatctt cacaaggta catgtcgata 240  
taaatatgag attataaattt catgatattt attttcgatt tttacatata atgttttttt 300  
tatctttttt agttcctaattt aagcattttt aaatgtctt ttttcctact ttgcataatca 360  
gggaccattt aatggacgaa ggtcaactgac agcatgaaca acgtgtctt cgtctccgaa 420  
acaacgtgcc atcttgcagg ctcaccaccc tggaaatccctt ggagtggtca ccactgattt 480  
tccggggaaa gcccggcgtt gaaagttga ttacaccggc aatgtgagcc ggtcgctgt 540  
gcaaccctgg tnccggaca aangcacacc aagtgnan tttgggtccg agggngcca 600

naattggggt tgcanggata ctaagcnntt ggnacttnc ctggnnnaacc caccctaatt	660
nccatntttc aatggggncnac cnaatttctt acaattggnt gcaananggg ntttngggn	720
aaccttnna ccccca	736

<210> 32  
<211> 566  
<212> DNA  
<213> soybean  
  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 32 gaccnnagac gctactatag ggagacaagg tattcgaagg ggaactgaga acgatccaaa	60
gcactccaag aaacagagag tttcacattt tttgttgtt acataatgaa gcaaacgtgc	120
gtggcatcac tgccttatta gaagagtgc acccagtgc agagagcccc atatgcgtct	180
acgcagtcca ccttatcgag ctcgtggga aaagtgcacc cattctcctt cccataaaac	240
atagacacgg tcgcagaaaa ttcttgtctg tgaattaccc caacaccaac cacatcatgc	300
aagccttcga aaactactcc aacaactcaa gtggccagt caaggttctt ccctacatca	360
acgtggcacc ttacaagagc atgcacgacg ccatttcaa cctgccccaa gacaatatgg	420
tgccttcat tatcatccct tttcacgaaa acggcaacat tgaccttgctt ggacacgtgg	480
ctgcctccat caggaagatg aatacttagt ttcaagcgca tgcgccatgc cgtagggat	540
actcgnggcc ggnactctng gtgggn	566

<210> 33  
<211> 614  
<212> DNA  
<213> soybean  
  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 33 acaacaagca acgaacagct tttaacctta aactaggcaa atgccaatat taaacaacaa	60
ataattaaaa ttgttaaggct ggtcgagtat aaatcaaaca aaaggccctc tattcaaacc	120
ttcatatatac atacctgntt ttaattaacg cggactactt tttcatataa aaaaaagatc	180

attagaggat taatttaaag cgnnttagtt tttaattacc aaagagtata attattatta	240
ggcgctttgg cccacaatca atcacctaaa caagaaaaag aaaaagaaaa aaaaaggcaa	300
attggactaa tgcaaaaagtgcacacatctt tgncttgaac tcttttaatta gcaacaaatn	360
atactcttct gcacaaatca caagaatacc ttacatgaaa agaatggnaa tntgacgggt	420
tacattaaat tatatgcagg tttctgcagg gaatcaattn tcaagaattt aaggggggggt	480
gggaattttc aatagctagc ttgactagca aaggaaaga ataaaggnaa aangcttctt	540
ggctnggcct tttgganng gnatccttt ngctaaaccg gaaanggnta tangaatggg	600
aaaggagana atcg	614

<210> 34  
<211> 602  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 34 aggcttagctg gtaaaaggacc agagaaggat ttgaaactca agttaagccataaaagctta	60
gtggaatttag caagactata agggattgct cctgtgagca agttgttgct gaggtcaaga	120
gactgaagca aaggccagaa acctaaagaa agaggtatgg aacctgttaag cctatttttg	180
aataactgaa cccctctaag gttggaaaga agtccaaag ttgaaggat tgaaccacca	240
atttggttat catgaagact aagcttcctg aggccctgaa gttggccat tttggcggtg	300
attcgacccc tcaaaccctt ccaaggaagc tggatcacaa taacctgtcc ctgagcacac	360
ttgattccaa cccaacctcc ggaacaagct ccatagccac tggcattcca gctcccgcaa	420
gaacccttct ggatcagcca actcttgctt gaaagcttat cacatgtacc tctctacaga	480
taggagggtg cttctccct ttcactggnc tacctttcg ggaataagcc acctaattgag	540
aaagaaagan ctggatagc taactctaca tagnctcaag gcnagagata attagggaaa	600
ng	602

<210> 35  
<211> 644  
<212> DNA  
<213> soybean

<220>

<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 35  
ggaattttga agagaagtaa agtgagagaa aatgantgan nnaggctgc tggtaaaggaa 60  
ccagagaagg atttggaaact caagttaagc caataaagct tagtgaaattt agcaagacta 120  
taagggatttgc ctcctgtgag caagttgttgc ctgaggtcaa gagactgaag caaagggcag 180  
aacacctaaag aaagaggtat ggaacctgtt aacccattgt tgaataactg aaccctctta 240  
aggttggaa gaagtcccaa agttgaaggg attgaaccac caatttggtt atcatgaaga 300  
ctaagcttcc tgaggccttg aagttggcca attttggcg tgattcgacc cctcaaacc 360  
ttccaaggaa gctggatcac aataacctgt ccctgagcac acttgattcc aacccaaac 420  
ccgaaacaag ctccatagcc actggcattt cagctcccgc aagaaccctt ctggatcagc 480  
caactcttgc ttgaaagctt atcacatgtt cctctctaca gataggaggg tgcttcttcc 540  
ctttcactgg nctacacttt cgggataaag ccacctaattt agaaagaaag anctgggata 600  
gcttaactctt catagnctca aggcnagaga taatttagggaa aang 644

<210> 36  
<211> 748  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 36  
atggcttaa cttgagtttc aactccttct ctggccttt accagctgc ctaactcact 60  
cattttctct cactttctt tctcttcaaa ataacaatct ttctggctcc cttcctaact 120  
cttgggggtgg gaattccaag aatggcttct ttaggcttca aaatttgcattt ctagatcata 180  
actttttcac tggtgacgtt cctgcttctt tgggttagctt aagagagctc aatgagattt 240  
cccttagtca taataagttt aatggagctg taccaaatga aataggaacc ctttcttaggc 300  
ttaagacact tgacatttct aataatgcct tgaatggaa cttgcctgct accctctcta 360  
atttatcctc acttacactg ctgaatgcag agaacaacctt cttgacaat caaatccctc 420  
aaagtttagg tagattgcgt aatcttctt ttctgatttt ggtagaaac caatttagtg 480  
gacatattcc ttcaagcattt gcaaacattt cctcgcttag gcagcttgat ttgcactgaa 540

taatttcagt ggagaaaattc cagtctccctt tgacagtcaa gcgcagaatctaaatctttc  
aatgtttcctt acaatagcct ctcanggtct gnccccccctc tgcttgccaa gaaatttaac  
tcaagctcat ttgtgggaaa tattcaacta tgtgggacag nccttcaacc ccatgttttn  
ccaagcttca tacaaggagc atggccct 600  
748

<210> 37  
<211> 563  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 37  
ctggctgtga ctgatctctc tggcttaatc tcttcagct gctggagaac ttgatgaact 60  
tctggtcgtg ctgatggaga aggtcaaca cagtcaaag cgagcttcaa cgtgttagc 120  
aactcgtcgc caactgtgga tgcattctc atcaagtctg catcaaaaac ctcatttgc 180  
cactcctctt tgacaactga ggcaacccac tgaggcaaat ctagtccatt catagacacc 240  
ccaggtgatt tcctcgtag gagttctaac aagataaac ac caagactgta gatatcgat 300  
ttagtgtttt ctttcttgag ctttgagagc tcaggtgcc ggtatccaa tgctccagct 360  
gtagctatca cggttggaaatt agcagcagg t gacatcaacc cgagaaagac caaaatctgc 420  
aatttttagca tttgtattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat 480  
gatgttctcc tggaaatgaa ggcagaacaa gccacggcca agcttggcta tttcatcctt 540  
gtggccaatc aatgaatggt cat 563

<210> 38  
<211> 623  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 38  
gattttgcac atctacttga gtaggcttca catgattccg tgtattactt ttatttggat 60  
atatataccatgtggagtat agtactactt tttgtcctac aaccacattt tatgagactt 120  
gcattttatgt tgacatgaac ataaaaaaaata atgaaaaaaga aaatgtcaca tatatatgat 180

acaatcttt	taaaagtcaa	tttgaataat	tttcatcg	gaggaaaaag	aagagagaaa	240
atgaattaag	tttcttctaa	aaattaaaat	caacttataa	aaagaaaaaa	ctttaatgaa	300
aaaaattcaa	aaagaaaaag	aataaaaatga	tcaatagcct	ttaggtttaa	gcacaaggtg	360
aatccaaata	aagaccccaa	aagatagtagc	agaacccaac	aatggtaaaa	tctagaaata	420
tacatgtaaa	gactgcattt	atagaccatc	atgactagca	aatgcttaaa	ggcacataga	480
tgaattaatc	tatgcaacaa	aatctgnccc	aagtttttt	tangcaagga	aaatcatatc	540
attttattaa	ggataactga	gaggaccaat	ggtgtaatca	attgaaatca	tgcgaggctt	600
acatgaaatc	tgtcaccaag	tac				623
<210>	39					
<211>	785					
<212>	DNA					
<213>	soybean					
<220>						
<221>	misc_feature					
<223>	n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)					
<400>	39					
caatttaggaa	ataaaatata	tgaaaagaat	tggttagtcag	ttcaatgaaa	gtgaggtcct	60
caaacaacct	gatgcagcan	ctgttatgata	caaaatata	taataactac	accagcagaa	120
aaatataagg	caatctata	ttgggaacca	aataatattt	aatttgtatc	tgatagactc	180
aagaaattat	aactaattt	gaagaaatgg	atacctagta	ttattaaaac	acccaaacac	240
agggcagatt	atagtagcta	aagaggaaga	agctaactag	tcaaagtgtc	acactattca	300
acactacaaa	ggaccaatcc	ccttttagag	agcctgacct	ttctcaccca	agagctaccc	360
aagagaatac	acaccctctc	ctccatatcc	cctccatata	aacacaatcc	tcaccaacta	420
agcacctacc	tgacaattcc	ctcctaacc	actctctgct	catcagggtt	gattctttc	480
tctttccaag	actttggct	tttggtttga	ctaagccaaa	tttctatctg	ctggcctgg	540
ccaaacagtat	cttttacaga	caagtttaca	aaatattcgt	atttgttaga	atttattgtat	600
atccctatta	tggtccccac	tgtgtgcaaa	catttagaaa	ctaattttac	aattaacagt	660
ttttggtaa	tgcagcaaaa	ctaaatata	ttgatataga	aatcaacaaa	ctgaaaaatt	720
atatngcaag	gncaattgga	aaagaaaatt	gataccctt	ttngggnaat	aaatatantg	780
nntac						785

<210> 40  
<211> 640  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 40  
tggaaaggcgt ccttcaattc aatcacaaag tctaaatcaa agacgagggg gctgaaatca 60  
tgggggacat tgacaacgta aggttaaccac taattaatta accactaata ttatcccatt 120  
aatatcccat taagagataa tacatataga gccaataaat aagcatctt acaagacaaa 180  
taaatttatcc attattcagc ttatgccat ggtggatttta gaagtttagg aaaaaaaaaat 240  
tcatcatttg gcaattttgg gctcattagc ttgaatttgt tacaagggtt ggtatggact 300  
tttttctttt cttttctcta aatttttcct tctatgatat acttttggtc aacttaaact 360  
caatttctta tagctcaata ttttggattt agattggaaa tatctaaaag ncacttaaat 420  
tttatattta caaaaaaaaaa aaaagcatcg ntcttttct ttttataaca aagggggatc 480  
aaaatcactc tttttatgaa tccgcattat ccttnataat aattaacctc cactggatt 540  
taaaggngaa ttaattaaat ccggaggcca tggaaggata tgggggaacc taatctaaaa 600  
ntncatcctc aaccctaang ggaaaataaa ggaatngggg 640

<210> 41  
<211> 808  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 41  
ctttgacac tatgaatacg aattcaaata tttaaatattt ttatTTTTtgc tctttgtatt 60  
ctatTTTTtc ataaattcta atTTTgctaa taatttcaat tcataTTTAAG atcggtaaat 120  
agaaaaatcta gaaaaaaaaa caaaaaaaaaaagt atTTTTTTTtgc tttttttttt atTTTcaatt 180  
gatttgcac taacaaactg attcctctta aatctcacaa aagtacatgt cgatataaat 240  
atgagattat aaatttcatga tatctattttt cgatTTTtgc atataatgtt ttttttatct 300  
tttttagttc ctaataagca ttTTTaaatgc tcttatgttc ctactttgca tatcaggac 360

ccattaatgg gacgaggttc actgcgagca tgaacaacgt gtcttcgtt ctcccgaaca	420
acgtgtccat cttgcaggct caccacctcg gaatccctgg agtgttacc actgattttc	480
cgggaaagcc gccggtaag tttgattaca ccggaatgt gagccgttc ctgtggcaac	540
ctgttcccgg gacaaaggca cacaaggta agttgggtc cgagggtgca gattgtgttgc	600
caggatacta gcattgtcac tcctgagaac caccctatcc atcttcatgg gtcgatttct	660
acattgttgc agagggtttc gggacttc acccaaagaa agatccgcga aattcaacct	720
tggatcc ctttggaaaa acacagtggc tggcctgtaa atggatggc aagtattcga	780
tttggggct gataaccnna gtaaaatnt	808

<210> 42  
<211> 605  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 42 ctccccgggtc ccaagtaata ggccctcag agccaaaaca ttgggggggc taattttcc	60
tagaacactg acttctgatt caaattctct atgaccctta gtgatcttt ccctcaatct	120
ctttactgca acttgacttc catcctccaa aatagcctta taaacagntc cataggtgct	180
ctttcccatg atctcagctg gtgcacacaa gagatcatca gctgtaaaag ccattggtcc	240
atcaaaatgg actagttcc ctccagcctc cccacctgct tcaacatcac caccagcaac	300
tggagggact ctttttctg cctcatagtg gcccgtctac cctcggtggc ttggccgntc	360
ccggccttag atgntgatct ctttctgatc aggtagaaaa gcaggacaca acaaagnata	420
atcaggacta cgaggagaac tcctgctact atgagaatta tgnctttggg gcttagcttc	480
ctatgatggg gatgggtnga cactcanga gggggggcaa tgactccctg gganggagct	540
tggaaagac atgggggtga aggnctgnac ccacataggn gaaaaattcc cacaangag	600
cnngn	605

<210> 43  
<211> 275  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 43  
ctgaacggaa gtgactgcgt ttgtgtcggt tgtaagcagg gagtggaggc attataggc 60  
tcggtttgc tctttactcc tttggcacga tggtgagaat gcttattgtg gtgattcggt 120  
gatttgtatt cgagtatggc gttttagtg gtgttgcga aggcaagcggt ttggcgat 180  
tggtacgcac gcccggccat gtagtagcgg gaaggtggct ggtcnccggt gattaagacg 240  
tcggcggttt gcccggggcc cactatgagg acttt 275

<210> 44  
<211> 632  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 44  
tgtatataat taaaatgagt ttaatattta tgtattaata gtataaaatt tatcatacat 60  
gatgaatggg gaaatttga attatgatta aataattata taaaaaaatt tacatgatga 120  
atgaataact tttttttct caattaaaat tatgatcctt tgtcgatatg tttactgtg 180  
tcgacctttt ttttcgggg agaggggacc agtaggagaa gtagtatTTA gtAAAAGAAAG 240  
ggagagagaa gttgacttat ccttaatta gtttagagaa aattagacga gaaggaaaaaa 300  
aaataggcga aagtcactt ttcttctat ctctaccaag aatgttgatg aaaaagtggg 360  
gagcagaatt ttaaattttt atttcatat ttatccttct ccacatttt ggTTTCTTCC 420  
atTTTTTat aaaatgattt atTTTGGGC ataggtaact tttcaatttt tttcattcta 480  
ttcgatcaaA taaatagaaa aataattac ttttcttct tttAACCTTt ttcattttc 540  
tctcataacg accacttatt aattacctct ttNCCCCAC ttttgctat ncaaatttat 600  
ctttgaattt ctccctttc atttggctc cn 632

<210> 45  
<211> 650  
<212> DNA  
<213> soybean

<220>

<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 45  
ttcacagaca tagcaaatt ctgaagtaa aagcaagttc acgtgtgatg gcgaaaccca 60  
ttatagaata tgtagactg aaaggtaaca aattaaaata tgtttattg cagaaaccat 120  
aaactaataa acctttggg tagatagaaa agtgataaat catacataat aataactgaa 180  
atactcagct ttatcaat ttaattcaat atatatctat ttttgaattt ttcaaagaga 240  
tgcttagcta gggagggaaac ctaatttagt ataaaaaaaaaa gaaacaattt aaaaacataa 300  
attgccattt aatgccttcc aaaatattcc gatccattga tgtctacata ataatatata 360  
ttattgat aataaccgat tgaataaaat ggtatatactt attacgtaat agcagattt 420  
tctacgcaaa agagacagtc aaagggtgcta attagaaattt aatcgccccca taataaaatt 480  
ctaaaccttt gaaaagataa atcaattctc aaaaagattt attttactta tctcagtacc 540  
atgcaccatg gatcatctt ctggtctggc tangaatttt caaagctacg ccacaaattt 600  
aaattgggct aaaaatcaaa catgcattttt gtcacaacta tattactagt 650

<210> 46  
<211> 628  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 46  
gaatgcacat tttataaacg tggtgatcct ctcccggnng ggggaccaat taataaggta 60  
ccctgttgcc ccttagggac attggatggc catcagatgg tgcataataca caccaaaat 120  
tatacagcat tatagtgact ttcaacctcc tcactccgag gtccccatata ttctctcta 180  
ttgaacttgtt aaagactaat gaacttatga agactatcac tggaaaccac tatggaaagcc 240  
ccagtagtaa aatggncatg catgctcacc aaaagtttat acagcattat agcgacatac 300  
gacctcactc ccaggnccac atgctctatn gaacttctaa agctatctn gaaccctatt 360  
atagcttcat gagggtaaca tgcatttttag cgacttagaa aactacatata cattgagcgt 420  
gatcnttaag aaggcctcat tttgacacaa aagaacatga tggatttgcc tttatattcg 480  
gttactaacc ttgatagcta ttttggncag agagaaaaat attgacatgc ccgnggaatc 540

aaaaggtaga taatnattaa agagataaaag aactatcccc ttgcttagggg naaaaaaaaa 600  
ntatatccct atttaaataaa aanccatc 628

<210> 47  
<211> 736  
<212> DNA  
<213> soybean

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<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
```

<400> 47 tgggtatat aattaaaatg agttaatat ttatgtatta atagtataaa atttatcata 60  
catgatgaat ggtgaaattt tgaattatga ttaaataatt atataaaaaaa atttacatga 120  
tgaatgaata acttttttt tctcaattaa aattatgatc ctttgcgt atgtttact 180  
gtgtcgacct ttttttcgg gggagagggg accagtagga gaagtagtat ttagtaaaag 240  
aaggagaga gaagttgact tatccttaa ttagttaga gaaaattaga cgagaaggaa 300  
aaaaaatagg cgaaagtcac ttttcttc tatctctacc aagaatgtt atgaaaaagt 360  
ggggagcaga attttaaatt tttatttca tatttaccc tctccacatt tttgtttct 420  
tccattttt tataaaatga tttattttag ggcatacgta actttcaat tttttcatt 480  
tctattcgat caaataaata gaaaaataat ttactttct ttcttttaac ctttcatat 540  
ttctctcata acgaacaact tattaattta cctctttcc cccactttg tctatccaaa 600  
ttctatctt gaatttctt cttttcatt ttgggtctca acccaaataa agaagaacga 660  
gtttggataa atcataaagg ttatataccc tataantgga agaacattta aatggtccaa 720  
ngggccttaa aattct 736

<210> 48  
<211> 695  
<212> DNA  
<213> soybean

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<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
```

```
<400> 48
atgccagagc tttccttatac gtggcccccac ctatgaagaa tacacccacg ttgaaaataca 60
tgttgttgtt gttggacgcgc cccagccccga gagtgcccggt ccacggatat ccccaacgtg 120
```

catggcgcat	gcgcttgaaa	cctagtattc	atcttcctga	tggaggcagc	cacgtgtccg	180
acaaggtaaa	tgttgcgtt	ttcgtgaaaa	gggatgataa	tgaaaggcac	catattgtct	240
tggcgaggt	tgaaaatggc	gtcgtgcatg	ctcttgtaag	gtgccacgtt	gatgttaggga	300
agaaccttga	ctggcccact	tgagttgtg	gagtagttt	cgaaggcttgc	catgatgtgg	360
ttggtgttgg	ggtaattcac	agacaagaat	tttctgcgac	cgtgtctatg	tttatggga	420
aggagaatgg	gtgcactttt	cccacgagct	cgataaaggt	ggactgcgta	naccatatgg	480
gctctttgc	actgggttgc	actcttctaa	taanggcagn	gatgccncnc	nccgttgct	540
tnattatgta	cncaacaaac	aatngaaac	tctctgnnn	ttgggagngc	tttggatcgn	600
tctcanntnc	ccttnnaata	ancttntnn	gngnactnn	agggcgangc	ttnnncnata	660
tgntaaccaa	gggnngtacn	annnnnngnt	ntaan			695

<210> 49  
<211> 625  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 49	tttcccacaa	tcttaatct	tgctaataat	ttcaattcat	attaagatcg	gaaaatagaa	60
	aatctataaa	aaaaaacaaa	aaaagtattt	tttttcatt	gattttattt	tcaattgatt	120
	tgtcaactaac	aaactgattc	ctcttaatc	tcacaaaagt	acatgtcgat	ataaatatga	180
	gattataaat	tcatgatatc	tatttcgt	tttacatat	aatgtttttt	ttatcttttt	240
	tagttcctaa	taagcatttt	taaatggctt	atgttcctac	tttgcataatc	agggacccat	300
	taatgggacg	aggttcactg	cgagcatgaa	caacgtggct	ttcggtctcc	cgaacaacgt	360
	gtccatcttgc	caggctcacc	acctcgaaat	ccctggagtg	ntcaccactg	atttccggg	420
	gaagccgccc	gtgaagttng	attacacccg	gcaatgtgag	ccgntcgctg	ggcaacactg	480
	ntcccgggac	aaaggcacac	aagttgaagt	ttgggtcgag	ggngcagatt	ggggntgcan	540
	gatactagca	ttgcactcct	gagaaccacc	ctatccatct	tcatgggac	caattctaca	600
	ttgggtgcaga	ngttccggg	aacnc				625

<210> 50

<211> 621  
<212> DNA  
<213> soybean

<220>

<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 50  
actgggtac gathtagtgt tactagctat cccatgtaat aaatatataa atcttgaatc 60  
acaaggaatg atgcaatata tggttcctct aatagtaagt tatcccacca aatctgaata 120  
taattaagaa gttgtattcg tctgaatgtt gtgtctaaaa gggttgattg atgaatgatg 180  
gctacatgtg agagtttgat aacaacagct agctagccat tagccaagcc actaactaga 240  
cattagttt gggtgggtgt cagacaaacc gttagacctg agaacgaaag cgtattaaac 300  
aaaagatgat atgttagactt ttaatataaa aagagatgga gaaaccaa at tgagatttg 360  
taggtgaact ataaatcatg acagtgcatt agacaagttg gtagagttg ttactaactc 420  
atcagattct taagaaaggc aaaaatagaa actacaccac atgtcgctag cgataacgtg 480  
caatttataa ataaataatg gcttcatttt catggttagt tataaattaa tgggtcacaa 540  
ttcttaattt attaggaacg tatacttcat tttgagagtg tataaagttg gaagaagaaa 600  
aggatataag aaagaataaa a 621

<210> 51  
<211> 480  
<212> DNA  
<213> soybean

<220>

<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 51  
aagctccgcn cggggAACCT nnagagtcta cctgaatccc caagntngaa cgaatacttg 60  
ccaaacacaaa tacggcgat gggaaacatc tgaagaccgc tccaaaggcg cncatactaa 120  
attgnnagga aaatttatat ctgacctttc atgggtgggg ggtgcacatctg ctataaggaa 180  
gggttcattc tgggcaagat ctgtggaaaa caatattggg gatcaaattt tagggagtga 240  
tgctacaacc tcttcattat acatggattc tgaataagt ggtgtgaact ttaaagtgaa 300  
cgaagacggc atgcaaatgc ctggattca tctagttgat ttatggaga ctgacaccaa 360  
tacaagcggc gataaacatg attcccacta tgatgaagng ccatcatctt atgggtttga 420

gggcttacga cgatccaaac gtaggaacat acaacctgaa ccgntactct gattggggga 480

<210> 52  
<211> 480  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 52  
aagctccgcn cggggAACCT nnagagtcta cctgaatccc caagntngaa cgaatacttg 60  
ccaacacaaa tacgggcgat gggAAACATC tgaagaccgc tccaaAGCGC cncataactaa 120  
attgnnagga aaatttatat ctgacctttc atgggtgggg ggtgcatactg ctataaggaa 180  
gggttcattc tggcaagat ctgtggaaaa caatattggg gatcaaattt tagggagtga 240  
tgctacaacc tcttcattat acatggattc tgaaataagt ggtgtgaact ttAAAGTGA 300  
cgaagacggc atgcaaATGC ctggTATTCA tctagttgat ttATTTGAGA ctgacaccaa 360  
tacaagcggc gataaacatg attcccacta tgatgaagng ccatcatctt atgggtttga 420  
gggcttacga cgatccaaac gtaggaacat acaacctgaa ccgntactct gattggggga 480

<210> 53  
<211> 736  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 53  
aatttattta gttgatataa ccactttcaa aaatctgact tacaagactc tttagaattc 60  
ataatagtga cacttgatta agttagatta gactttataa aacacgagtt tgatTTTT 120  
tttaataata attaaggTTC tagcttatAT atattatata gttgatatag actactttca 180  
aaagtctgac ttaaaaAGTCT cttagtata cataataata taacctttta atttagttaa 240  
aaaatttgcC cctaaataaa ttaataaATC caaacttata tacaagttaa taggcttaag 300  
tcttaaaaaa ataatatata tatatatata taaagcatta aaacatttca atgaaaacaa 360  
tataataata ataataataa atatattatt gttattaatt catagatttt attattacta 420

ttatagaata atttgtgtgt atatatataa atatatacag agagagaggg tcattttata	480
ttagtgagaa aatttaaata ttattatgaa ttttcaaaat taaaatcaca tgccatatga	540
ttttcttaaa aaattacgta actttttttt ttacaaaagt aatcatatgg tttaaaaac	600
taatttaaat aacttatata taactatatc agntaaaatt ngggtcataa aataagtata	660
tcagntattt tacaaaaatt ataagtnttc ataaataaaat accaaatgat agtcccaggn	720
gatgggnncag cttnnng	736

<210> 54  
<211> 642  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 54	
ttaactttac acaacacacc accagagtgt aagctgttc ataaaaaatg attgtttcg	60
gcgttcggat cacaaggctt gtttagtatt cggttaagaaa gaaagaaata ggtgataaat	120
aaagtggata gaaacataaa agaaaggaat aaagtaatga aaataaggaa gaagtagaaat	180
aatggaaata gataagaaat agaatggatt cgatagtata tctagttaa gagaaataag	240
aaaaaataag aacaagaaaa aaaattgcat tttaatttat tatttgtact gtatcgatga	300
ttggcacgag attataagtt tttttttcg tggttacggtt gaaggattat atatcataacc	360
atttgtttgt caaccaacac ggaactttaa gtctcttgat gttcaaaagc actaaaaact	420
aaggaatttt acatcatatt agtcgctgta gactgataca ggattttaaag cctatataatc	480
tagcattgat cgggtgtcaa tcaatatcac attaatgatc ggtaaaccat tcatataacc	540
ccttgattt gtcagaataat ggctttatga atncccagga ttgagcccag aagacaggtg	600
atactaggtt caattcatgg ttttagata ggctcgtaaa cc	642

<210> 55  
<211> 659  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 55  
aaaaggacct aaaagcaaaa agaaaaattga gtatccttag gaattaaaaa tattccaata 60  
aaaataaaaat aaagatccaa atgatagtgg gataaccgaa gaggaatgtc tttcaaccac 120  
tgccgtgaccg ccaccactgc caacagccta gtatcaaccg aatccacata taccaacaat 180  
cttcagacaa acacttctaa gttggtgctg aagagacaat atctcatggg tagatcaaat 240  
taagagtgct accaataaca aaatcgggat catttgacta acaaacagtt atgtgcattg 300  
gatgttctac catagtacat tgctttatgt gaaattcttt taattattca atattgacat 360  
gntcttatat atatatatat atatatatat atatacgagg gattgnatta 420  
tctctgaaaaa aagatttat cataaaaatca taatgatttc tcataatgna tctttacatt 480  
ttaaaggtag ataaataaaa ttgatttaaa tnggnagata taattaaaat acataattaa 540  
tatgactttt aaccaaattt atatataaac actaaaaaaa aagttcatga acgnccgggg 600  
ngnattggnt gggncaaaaa aaaattaata ctatcaacct aattaaaaat tatttatan 659

<210> 56  
<211> 805  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 56  
ccaatgccag agcttcccta tcgtgggccc cacctatgaa gaatacacccc acgttgaard 60  
acatgttgtt gttgttggac gcgcggcagcc gagagtgcgg gtccacgagt atccccaaacg 120  
tgcatggcgc atgcgcttga aacctagtat tcacatccct gatggaggca gccacgtgtc 180  
cgacaagggtc aatgttgccg tttcgtgaa aaggatgtat aatgaaaaggc accatattgt 240  
cttgggcgag gttgaaaatg gcgtcggtca tgctttgtta aggtgccacg ttgatgtagg 300  
gaagaacctt gactggccca cttgagttgt tggagtagtt ttcgaaggct tgcatgtgt 360  
ggttgggtgtt gggtaattc acagacaaga attttctgcg accgtgtcta tgtttatgg 420  
gaaggagaat gggtgactt ttccccacga gctcgataag gtggactgcg tagacgcata 480  
tggggctctc ttgcactggg ttgcactctt ctaataaggc agtgtatgcca cgcacgttg 540  
ctttcattat gtacacaaca aaacaatgtg aaaactctct gtttcttgg ggtgctttgg 600  
atcggttctcn agttccccctt cgaataagct ttctgcgtgn tacttcnagg ggcnatgct 660

ttgtaccaat atgnttancc caagggngnt tnccattncn ggtcttact accacnacat 720  
aacaccnat tnnttgaann gnancnacn cAACNTCTAC naaancgtna tcaatnacnt 780  
tnnatngat ttganncact ggccn 805

<210> 57  
<211> 632  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 57  
tttagaattc ataatagtga cacttgatta agttagatta gactttataa aacacgagtt 60  
tgattttttt tttaataata attaagggttc tagcttatat atattatata gttgatatag 120  
actactttca aaagtctgac ttaaaagtct cttagtata cataataata taacctttta 180  
attagttaa aaaatttgc cctaaataaa ttaataaatac caaacttata tacaagttaa 240  
taggcttaag tctaaaaaaa ataatatata tatatatata taaagcatta aaacatttca 300  
atgaaaacaa tataataata ataataataa atatattatt gttattaatt catagatttt 360  
attattacta ttatagaata atttgtgtgt atatataaa atatataagag agagagaggg 420  
tcattttata tgagtgagaa aatttaaata ttattatgaa ttttcaaaat taaaatcaca 480  
tgccatatga ttttctaaa aatttacgta actttttttt ttacaaaagt aatcatatgg 540  
ttttaaaaac taatttaaat aacttatata taactatatac agttaaattt ggttcataaa 600  
ataagtatat cagttatTTT acaaaattat aa 632

<210> 58  
<211> 437  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 58  
ctttgacac tatngaatac gaattcgaat gtcggagcgt gcagatacga gggtgagctt 60  
gttaggttt gttatcgta acaagaaacc gtgtggttgt aaaatttattt tgacaagaga 120  
agagcgtgaa gaggaagagg aagataaccat gttggacgag gggtaattg acgagttcaa 180

gagcatgaaa tatggcattt gtaacgtttt ttggtagatcgagg attacgggtgg acgatgggggt	240
ggaggtgtttt gaagcagtgc atagtttggaa aggaaactat gatcttgatgtga tggggaaag	300
gcgccacaat gatggatctt tgaatggaaa agaaatgaca actttcatgg agaacgctga	360
tgcattggaa atattgtggg atatgttccc ttccnccanc ntgnntggcn tngttccgct	420
tttttcgnct ntnngcc	437

<210> 59  
<211> 681  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 59 ggnttcttta gggctcaaa atttgatcct agatcataac ttttttcaact ggtgacgttc	60
ctgcttctttt gggtagctta agagagctca atgagatttc ccttagtcat aataagttta	120
gtggagctat accaaatgaa ataggaaccc tttctaggct taagacactt gacatttcta	180
ataatgcctt gaatggaaac ttgcctgcta ccctctctaa tttatcctca cttacactgc	240
tgaatgcaga gaacaacctc cttgacaatc aaatccctca aagtttaggt agattgcgta	300
atctttctgt tctgattttt agtagaaacc aatttagtgg acatattcct tcaagcattt	360
caaacatttc ctcgctttagg cagcttgatt tgcactgaat aatttcagtg gagaaattcc	420
agtctcctttt gacagtcaag cgtagctaaa tctttcaat ggttcctaca atagcctctc	480
agggtctgcc cccctctgct tggcaagaaa tttaactcaa gctcatttgt gggaaatatt	540
caactatgtg gggtagcccccc ttcaacccca tggcttcca agctncatca caagggggca	600
ttggccccctt cctgagnggc aaacatcacc atcataggaa gctaacccca aagacataat	660
tctcatagta nccaggaggt n	681

<210> 60  
<211> 644  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 60  
acaacaagca acgaacagct tttaacctta aactaggcta atgccaatat taaagaagaa 60  
ataattaaaa ttgttaaggct ggtcgtgtat aaattaaaca aaaggccctc tattcaaacc 120  
ttcatatatac atacctgttt ttaattaacg cgactactt tttcatataa aaaaaagatc 180  
attagaggat taattaaag cgtttagtt tttaattacc aaagagtata attattatta 240  
ggcgcttgtt cccacaatca atcacctaaa caagaaaaag aaaaagaaaa aaaaagtcaa 300  
atggactaa tgcaaaagtgc cacaatctt tgtctgaac tcttaatta gcaacaattt 360  
atactcttc gcacaaatca caagaatacc ttacatgaaa agaatggtaa tttgacgggt 420  
tacattaaat tatatgcagt ttctgcagg taattaattt tcaagaattt aagggtggtt 480  
ggttaatttc aatagctagc ttgactagca aagggaaagaa taaaggtaaa atgcttctt 540  
gttggcctt ttggattggtaacttttctt ctaaacggaa atggttatataat gaatggtaaa 600  
ggagataaaat tggtacatag ctaaaatggtaatgncttaa tccn 644

<210> 61  
<211> 678  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 61  
aaattcattt aacttctcta atttttaat cgatcaaatt tggttttca atctaaaata 60  
taagaaaacta tatttgtga tgggtttaaa atcgacatta agtgttctt atctaccaca 120  
aaaagcacat ttccaaaaaaaaataaaatattttttaatataagatcaa attgaatcaa 180  
ttttaaaaat taaaatatta aattgaaaaa aaaaataaaag gatcaaattt aacataaata 240  
ataaaatttga ggattaaaaa actaattttttaa ccttaattt tttctcactt atattaat 300  
taaaaaattttaa tattgattttt cctaataact ccttatctca attaaaattt ccaaaaattt 360  
attctagcat cttcaaacac tactcaccat gaaagttcat cacaaccatc tttcttctc 420  
ttttctctac atcatgtttt cgcttcgcaa actttattgt gttcctagtc ttagacgtct 480  
gataatcttc cacaagtattt gaaactataac acttatttggta cttgcaccgg taatagctaa 540  
caccaaatgaa gacgtgcact tgactttat atcactaaga aaatttcaac acattgacca 600  
agattagctc catcttgctt taacacttgg ttgactagtc acttaagtgc aacaaccact 660

ttgatatcat	tgggtgga	678
<210>	62	
<211>	571	
<212>	DNA	
<213>	soybean	
<220>		
<221>	misc_feature	
<223>	n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)	
<400>	62	
tccttaaga ccattcgaca ctatagaata cgaattccat aattaacaat aaagtcatct		60
tctattatat attttttctt cttaaattac atgatagttat ttcatcatta tttgacaata		120
atgatatttt tatctcataa atattatTTT gttttaaaaa tattcatagc acacacgagt		180
tttttatatc aacaaagagg tatcaattca gttggtaat ttggctaaac ttttagacaa		240
tgtcgtagat ttgaattgaa ttggatttg gcagtatata ttttactttt tgccccctta		300
ttttcaatca aatttagagta gacgcctcgt attattggca tacatggata ttggatggc		360
acctgtgttt cagacctgag tcacatctga ctcggatcga ttttatctta catgaaaatt		420
ccaaaataat gaaagatatg gcaattggca ccatgtaact ctatggacac caatgcttca		480
ccgttagagct ctaaatttcg aggccttcta tatatacgat ttgcgtgacta tgtnaaattt		540
ntcaatatcn nttaattttt ttngggccc c		571
<210>	63	
<211>	856	
<212>	DNA	
<213>	soybean	
<220>		
<221>	misc_feature	
<223>	n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)	
<400>	63	
aattagttgt cttgtttatt cattaccttt tcaattttt taatcaccat aattaaggcc		60
tttcgaatcc cttaagtga taaaagaaac gtgcaattat gcgaacaaat aaattttcgt		120
tatgttacta tttagtcaag gagaaaaaaa aagtgataag ggaagaaaca agggatattt		180
cctgttataa caaactaaa atggcgacta tttgacgac attgcaaata ctcatagttac		240
gatataaattt ttgaatttaa tatacaatga ataggcatat tcattttcta ccccaaaaaa		300

gcatactcat ttatgtacat ttaattttct ctccatagag gaattaatgt acaaccatgc	360
ataagggatg agcgaaaggg acagattatt gcaatccaga agcatccaag gaaagttgga	420
taaacaaaatc aattaatata tataaaaaaa aaacaaaaat gctcctagta gaagattaaa	480
ggaagagttg gctatatatg gcaaaccctt tctaactggt ttacccttctt ctcacatcaccc	540
gcattgcattc accaatacgg gaactttcc cattacaaaa ctcattggaa gccaacatata	600
cccccaaaat tccactggat ctgcattgtc catgaaattt gacatttctt cttctacaaa	660
atccccatgc tatgtcggtt tccaccatcc taggtcatag tccttcttca ttccccgaat	720
cgnntcacac ttgtatgcaa tcttccaccc cagcctcatg ggaaacaccg ntaacactat	780
cactctaata tcattttgg cataaaactca tctataaacc tctcgncac gggctttta	840
aattctcatc ttnttn	856

<210> 64  
<211> 639  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 64	
tcccctttgg gtcccaagta ataggccctc agagccaaaa cattggggtg tctaattttt	60
ccttagaacac tgacttctga ttcaaattct ctatgacctt tagtgatctt ttccctcaat	120
ctctttactg caacttgact tccatcctcc aaaatagcct tataaacagt tccataggtg	180
ctctttccca ttagtcagc tggcagac aagagatcat cagctgtaaa agccattgg	240
ccatcaaaaat ggacttagttt ccctccagcc tccccacctg cttcaacatc accaccagca	300
actggaggga ctccttttc tgcctcata gtggccgctc taccctcggt ggcttggccg	360
tcccgccctt agatgttcat ctcttctga tcaggcagaa aagcaggaca caacaaagta	420
taatcaggac tacgaggaga actcctgcta ctatgagaat tatgtctttg ggcttagctt	480
ctatgatgggt gatggttga cacttcagga ggtggggcaa tgactccttgc ttagggagct	540
tggaaagac atgggggttga agggctggac ccacatagtt gaatatttcc acaaatgagc	600
ttgagttaaa attcttggca agcananggg ggacagaan	639

<210> 65  
<211> 495

<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 65  
ttcccaatgc cggagcttcc ctatcgtggg cccccacctat gangaataaca ccctcgaaatg 60  
aaatacatgt tgttgntgnt ggacgcgcgc agccgagagt gccggtccac tagtatcccc 120  
aacgtgcatt ggcgcattgcgc ttgaaaccta gtattcatct tcctgatgga ggcagccacg 180  
tgtccgacaa ggtcaatgtt gccgtttcg tgaaaaggaa tgataatgaa aggcaccata 240  
ttgtcttggg cgaggttgaa aatggcgtcg tgcatgctct tgtaagggtgc cacgttgatg 300  
tagggaagaaa ccttgactgg cccacttgag ttgttggagt agtttcgaa ggcttgcatt 360  
atgtggttgg tgttgggta attcacagac aagaattttc tgcgaccggg tctatgttt 420  
atgggaagggaa gaatgggtgc acttttccca cgagctcnat aaggggggact gcntanacnc 480  
atatggggct ctctt 495

<210> 66  
<211> 480  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 66  
cnnntcttaga atcgaattct ttggtatcag aacatatcag tcattttaa agaataagaa 60  
attnaaattag acttaatttt taagagtatg gattaaaatg taaaatttgc ggggattata 120  
aacataaaata agtaattttt cctatatgag acatttattt aaatcttaag ataagatacg 180  
tacatgcaaa ttaaatttgc gcatgataat agaatttagt gaatagtcca atacctgaca 240  
cctctttgggt ccgaagtttt tggggcactt cttgataacct aaacccacag tgaagaagag 300  
gctctgggtca atttcagtgg gtacttcaac ttttcttaggg cttctgaagc ttttgctgaa 360  
ggaagtgact gcgttgggt ccgttggtaag cagggagtgg aggcattata ggtttgggttt 420  
tggttctttac tccttggca cgatggtgag aatgcttattt gtggtgattc ggtgatttgt 480

<210> 67

<211> 669  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 67  
atgcccaaaa aatttaccta aaagcaaata aaaaagatga gtatttcttt taaattaaaa 60  
atattttaat aaaaataaaaa taaagatcca aatgataatg tgataaccga agaggaatgt 120  
ctttcaacca ctgcctgacc gccaccactg ccaacagcct agtatcaacc gaatccacat 180  
ataccaacaa tcttcagaca aacacttcta agttggtgct gaagagacaa tatctcatgg 240  
gtagatcaaa ttaagagtgc taccaataac aaaatcgaaa tcatttgact aacaaacagt 300  
tatgtgcatt ggatgttcta ccatagtaca ttgcattatg taaaattctt ttaatttttc 360  
aatattgaca tgggtcttat atatatatat atatatatat atatatatat atatatacga 420  
gggattgtat tatctctgaa aaaagattt atcataaaat cataatgatt tctcataatg 480  
gatctntaca ttttaaaggt agataaataa aattgatttt aaatngggag atataattaa 540  
aanacataat taatatgact ttaacaaat tgatataaa acactaaaaa aaaagntcca 600  
tgacgcacng ggggnattgg tggcacaaaa aaaattatct atcactaatt aaaantatta 660  
taaatatan 669

<210> 68  
<211> 486  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 68  
tgggtatat aattaaaatg agtttatat ttatgtatta atgtataaa atttatacata 60  
catgatgaat ggtgaaattt tgaattatga ttaaataatt atataaaaaa atttacatga 120  
tgaatgaata acttttttt tctcaattaa aattatgatc ctttgcgt atgtttact 180  
gtgtcgacct ttttttcgg gggagagggg accagtagga gaagtagtat ttagtaaaag 240  
aaggagaga gaagttgact ttcctttaa ttagttaga gaaaattaga cgagaaggaa 300  
aaaaaatagg cgaaagtac ttttcttac tatctctacc aagaatgtt ataaaaaagt 360

ggggagcaga	atttaaattt	tttattttca	tatttacct	tctccacatt	tttgntttct	420
tccatTTTT	tataaaanga	tttatttttag	gcatagntaa	ctttcaattt	ttttcattt	480
ctattc						486

<210> 69  
<211> 779  
<212> DNA  
<213> soybean  
  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 69	tatttgtaaa	ttgttttta	taattgaaaa	gaaaataagg	ttaaatttattt	ttcatataaa	60
	aaatttaattt	tgttcttata	agttattttg	aaaattttat	taaaataagt	tgaaaacaat	120
	ttataaataa	atcataaact	ataattttat	aagtttctt	aaatacttac	acgtatgcca	180
	taaaataagt	tcaaaaaa	tataaataaa	ttccctccaa	cacatcttaa	atctatattt	240
	ttttaaaaca	aacttcatc	gttttttta	tattataata	ataataataa	actcaatca	300
	ttaacaatta	atatatgtgg	ataaaagagc	attcaaaatg	atattttattt	agcacatgac	360
	aaatcacatt	actctcaagc	tatTTTTT	aactaataaa	aacttacata	tttatgtata	420
	tgatataaac	tctctctata	tttacacttt	tttgagataa	acaaggataa	aaaatgtatgt	480
	aaatatgacc	gcatataata	ttatttataa	tgtacggaat	gccgttttg	acattttata	540
	taatataatct	ggggcaattt	atTTTCTTAA	ccaataatta	gcaaattttt	atcttgcttt	600
	ttctccatgg	gggctaaattt	aaactaaagg	gnctaccca	atccagtccc	actttttttt	660
	aaataattnn	ttccntccc	acttagnaaa	ggagtntttn	ggcttaaatin	ggcagnnncca	720
	ttaaccataa	gccttntgg	taaggagtct	taccaantaa	aatggggaaag	cccccccccc	779

<210> 70  
<211> 677  
<212> DNA  
<213> soybean  
  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 70

ttattggctt aacttgagtt tcaactccctt ctctggcctt ttaccagcta gcctaactca	60
ctcattttct ctcacttttc tttctcttca aaataacaat ctttctggct cccttcctaa	120
ctctggggtt ggaaattcca agaatggcctt cttaggctt caaaatttga tcctagatca	180
taacttttc actggtgacg ttcctgcttc tttggtagc ttaagagagc tcaatgagat	240
ttcccttagt cataataagt ttagtggagc tataccaaat gaaataggaa cccttcttag	300
gcttaagaca cttgacattt ctaataatgc cttgaatggg aacttgcctg ctaccctctc	360
taatttatcc tcacttacac tgctgaatgc agagaacaac ctccttgaca atcaaattccc	420
tcaaagtttta ggttagattgc gtaatcttgc tgttctgatt ttgagtagaa accaatttag	480
tggacatatt ccttcaagca ttgcaaacat ttccctcgctt aggtagctt attgcactg	540
aataatttca gtggagaaaat tccagctcct ttgcagtcag cgccagctaaa tctttcaat	600
ggttcctaca atagcctctc anggtctgtc cccccctctgc ttgccaagaa atttaactca	660
agctcatttg tggaaat	677

<210> 71  
<211> 571  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 71 tgggactggc tgtgactgat ctctctggc taatctttc cagctgctgg agaacttgat	60
gaacttctgg tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt	120
ttagcaactc gtgcacaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat	180
ttgtccactc ctcttgaca actgaggcaa cccactgagg caaatctgtt ccattcatag	240
acaccccagg tgatttcctc gtaggagtt ctaacaagat aacaccaaga ctgttagat	300
cagtttttgtt gtttgcttc ttgagcttg agagctcagg tgcccggtat cccaatgctt	360
cagctgtac tatcacgttg gaatttagcag cagttgacat caaccgagaa agaccaaaat	420
ctgcaattttt agcatttgna ttctcattaa acaacacaat gntggatgng anggtncat	480
ggatgaaggt cttctngna agnaagnaaa acaaagcacc gggccaaggn ttgggctaatt	540
ttcaaccttg gggggcaaac naanaaatgt t	571

<210> 72  
<211> 756  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 72  
atggcttaa cttgagttc aactccttct ctggccctt accagctgc ctaactcact 60  
cattttctct cactttctt tctcttcaaa ataacaatct ttntggctcc cttnctaact 120  
gtgggggggg gaatancaag gnggctta ggctgaaaaa tttgatccta gatcataact 180  
tttcactgg tgacgttccct gcttcttgg gtagcttaag agagctcaat gagatttccc 240  
ttagtcataa taagtttagt ggagctatac caaatgaaat aggaaccctt tctaggctta 300  
agacacttga catttctaat aatgccttga atggaaactt gcctgctacc ctctctaatt 360  
tatcctcact tacactgctg aatgcagaga acaacctcct tgacaatcaa atccctcaaa 420  
gtttaggttag attgcgtact ct当地ctgtt cc当地atttga gtagaaacca atttagtgga 480  
catattcctt caagcatngc nnacatttcc tc当地taggc agcttgatttgc tcactgaata 540  
at当地cagggtg gagaattnc agtctnctt gacagtcagc gcagtctaaa tcttcttcaa 600  
t当地tnctac aataggcctc tc当地gggtctg gccccctt gnttggccaa ggaaanttaa 660  
cttaagctta tttgggggg aaanattcaa ctatgggggg acncggccct ttaaaccctt 720  
gggntttcc caggttccctt ccaagggngc anttgt 756

<210> 73  
<211> 557  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 73  
tgtgactgat ctctctggtc taatctcttc cagctgctgg agaacttgat gaacttctgg 60  
tc当地gctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt ttagcaactc 120  
gtcgccaaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat ttgtccactc 180  
ctctttgaca actgaggca cccactgagg caaatctagt ccattcatag acnccccagg 240

tgatttcntc gtaggagtt ntaacaagat aacaccaaga ctgtagatat cagttttagt	300
gttgcttc ttgagcttg agagttaagg gnccggant cccanngntc nagttgnagt	360
tatancgtt gaattagcag nagttgcntc aaccgaaaaa gaccaaatac tgaattttag	420
cattgttt tcataagca acacattgtt gcatgngagg tcccatgtat gatgttctcc	480
tggaaatgaa ggcaaacaag cccgggccaa ggcttggct atttaatcc ttggggcca	540
aacaatgaaa ggttnat	557

<210> 74  
<211> 673  
<212> DNA  
<213> soybean  
  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 74 gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatg	60
aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgttt	120
tagcaactcg tcgccaactg tggatgcatt tctcatcaag tctgcattaa aaacctcatt	180
tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatctagtc cattcataga	240
caccccaggt gatttcctcg ttaggatcc taacaagata acaccaagac tgttagatatc	300
agtttagtg tttgctttct tgagctttt agaagctcag gtgccccgta tcccaaatgc	360
ttccagctgt agcttatcac cggtggaaat taagcagcaa gttggacatt caacccggag	420
naaaagaccc aaaaatttttcaaaatttttta agcaatttng gnantcttn aatcaaggcc	480
aaccaccaat tggnttggaa atgggtggaaag ggttccccca atggtaatttgaagggtttc	540
ttccctnggg gaaaatggaa aggggcaana aaacaaaggc ccaacngggg ccccaaaggt	600
nttttggggg ctttattttt tncnaatncc ctttgggnngg ggncccaaat tcnaaantgg	660
aaattggntt tnn	673

<210> 75  
<211> 602  
<212> DNA  
<213> soybean  
  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 75  
aggctagctg gtaaaaggacc agagaaggat ttgaaaactca agttaaggcca ataaaagctta 60  
gtggaaattag caagactata agggattgct cctgtgagca agtttgtgct gaggtcaaga 120  
gactgaagca aagggcagaa acctaaagaa agaggtatgg aacctgtaag cctattgttg 180  
aataactgaa cccctctaag gttgggaaga agtcccaaag ttgaaggat tgaaccacca 240  
atttggttat catgaagact aagtttcctg aggccctgaa gttggccaat tttggcggtg 300  
attcgacccc tcaaaccctt ccaaggaagc tggatcacaa taacctgtcc ctgagcacac 360  
ttgattccaa cccaacctcc ggaacaagct ccatagccac tggcattcca gctcccgcaa 420  
gaacccttct ggatcagcca actcttgctt gaaagcttat cacatgtacc tctctacaga 480  
taggagggtg cttctccct ttcactggnc tacctttcg ggaataagcc acctaattgag 540  
aaagaaaagan ctgggatagc taactctaca tagnctcaag gcnaagagata attaggaaaa 600  
ng 602

<210> 76  
<211> 748  
<212> DNA  
<213> soybean  
  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 76  
attggcttaa cttgagtttc aactccttct ctggccttt accagctagc ctaactcact 60  
cattttctct cactttctt tctcttcaaa ataacaatct ttctggctcc cttcctaact 120  
cttgggggtgg gaattccaag aatggcttct ttaggcttca aaatttgcac ctagatcata 180  
actttttcac tggtgacgtt cctgcttctt tggtagctt aagagagctc aatgagattt 240  
cccttagtca taataagttt aatggagctg taccatatga aataggaacc ctttcttaggc 300  
ttaagacact tgacatttct aataatgcct tgaatggaa cttgcctgct accctctcta 360  
atttatcctc acttacactg ctgaatgcag agaacaacct ccttgacaat caaatccctc 420  
aaagtttagg tagattgcgt aatcttctg ttctgatttt ggtagaaac caattttagtg 480  
gacatattcc ttcaagcatt gcaaaccatt cctcgcttag gcagcttgat ttgcactgaa 540  
taatttcagt ggagaaattc cagtctcctt tgacagtcaa gcgcaagtct aaatctcttc 600

aatgtttcct acaatagcct ctcanggtct gncccccctc tgcttgccaa gaaatttaac 660  
tcaagctcat ttgtggaaa tattcaacta tgtggacag nccttcaacc ccatgttttn 720  
ccaagcttca tacaaggagc atggccct 748

<210> 77  
<211> 563  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 77  
ctggctgtga ctgatctctc tggtctaatac tcttccagct gctggagaac ttgatgaact 60  
tctggtcgtg ctgatggaga aggtcaaca cagtcaaag cgagcttcaa cgtgttagc 120  
aactcgtcgc caactgtgga tgcataatctc atcaagtctg catcaaaaac ctcatttgc 180  
cactcctctt tgacaactga ggcaacccac tgaggcaaat ctatccatt catagacacc 240  
ccaggtgatt tcctcgtag gagttctaac aagataaacac caagactgta gatatcgatt 300  
ttatgttttgc ctttctttag ctttgagagc tcaggtgccc ggtatccaa tgctccagct 360  
gtatcgatca cggttggaaatt agcagcaggat gacatcaacc cgagaaagac caaaatctgc 420  
aatttttagca tttgtattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat 480  
gatgttctcc tggaaatgaa ggcagaacaa gccacggcca agttggcta tttcatcctt 540  
gtggccaatc aatgaatggc cat 563

<210> 78  
<211> 623  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 78  
gattttgcac atctacttga gtaggcttca catgattccg tgtattactt ttatTTGGT 60  
atatataacca tgtggagtat agtatacatt tttgtcctac aaccacattt tatgagactt 120  
gcattttatg tgacatgaac ataaaaaaaata atgaaaaaaga aaatgtcaca tatatatgtat 180  
acaatctttt taaaagtcaa tttgaataat ttttcatcag gagaaaaaag aagagagaaa 240

atgaatttaag tttcttctaa aaattaaaat caacttataa aaagaaaaaa cttaatgaa	300
aaaaattcaa aaagaaaaag aataaaatga tcaatagcct ttaggtttaa gcacaaggta	360
aatccaaata aagacccaa aagatagtac agaacccaac aatggtaaaa tctagaata	420
tacatgtaaa gactgcattt atagaccatc atgactagca aatgcttaaa ggcacataga	480
tgaattaatc tatgcaacaa aatctgnccc aagtttttt tangcaagga aaatcatatc	540
attttattaa ggataactga gaggaccaat ggtgtaatca attgaaatca tgcgaggctt	600
acatgaaatc tgtcaccaag tac	623

<210> 79  
<211> 605  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 79 ctcccgggtc ccaagtaata ggcccctcag agccaaaaca ttgggggggc taattttcc	60
tagaacactg acttctgatt caaattctct atgaccttta gtgatcttt ccctcaatct	120
cttactgca acttgacttc catcctccaa aatagcctta taaacagntc cataggtgct	180
cttcccatg atctcagctg gtgcacacaa gagatcatca gctgtaaaag ccattggtcc	240
atcaaaatgg actagttcc ctccagcctc cccacctgct tcaacatcac caccagcaac	300
tggagggact ctttttctg cctcatagtg gccgctctac cctcggtggc ttggccgntc	360
ccggccttag atgntgatct cttctgatc aggcaaaaa gcaggacaca acaaagnata	420
atcaggacta cgaggagaac tcctgctact atgagaatta tgnctttggg gcttagctc	480
ctatgatggg gatggtnga cactcanga gggggggcaa tgactccctg gganggagct	540
tggaaagac atgggggtga aggnctgnac ccacataggn gaaaaattcc cacaaangag	600
cnngn	605

<210> 80  
<211> 711  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 80  
ttaangncca acgactcaact atagggcgaa ttgggccccga cgtcgcacatgc tcccgccgc 60  
catggccgcg ggattggctt aacttgaggtt tcaactcctt ctctggctt ttaccagcta 120  
gccttaactca ctcattttct ctcacttttc tttctcttcn taaaataaca atctttctgg 180  
ctcccttcct aactcttggg gtgggaattc caagaatggc ttcttttaggc ttcaaaattt 240  
gatcctagat cataactttt tcactggta cgttcctgct tctttggta gcttaagaga 300  
gctcaatgag atttccctta gtcataataa gtttagtgga gctataccaa atgaaatagg 360  
aaccctttct aggcttaaga cacttgacat ttctataat gccttgaatg ggaacttgcc 420  
tgctaccctc tctaatttat cctcacttac actgctgaat gcagagaaca acctccttga 480  
caatcaaatc cctcaaagtt taggttagatt gcgtaatctt tctgttctga ttttagtag 540  
aaaccaattt agtggacata ttccttcaag cattgcaaac atttcctcgc ttaggcagct 600  
tgatttgtca ctgaataatt tcagtggaga aattccagtc tcctttgaca gtcagcgcag 660  
tctaaatctc ttcaatgttt cctacaatag cctctcaggg tctgtccccc n 711

<210> 81  
<211> 716  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 81  
ttnntgaaaa cccttgcta tttaggtgac actatagaat actcaagcta tgcatccaac 60  
gcgttggag ctctccata tggtcgacct gcaggcgcc gcactagtga ttaatacgac 120  
tcactatagg gtcgagcgg ccgccccggc aggtggact ggctgtgact gatctctctg 180  
gtctaatctc ttccagctgc tggagaactt gatgaacttc tggcgtgct gatggagaag 240  
gatcaacaca gtgcaaagcg agcttcaacg tgtttagcaa ctcgtcgcca actgtggatg 300  
catctctcat caagtctgca tcaaaaacct catttgtcca ctcctcttgc acaactgagg 360  
caacccactg aggcaaatct agtccattca tagacaccccc aggtgatttc ctcgttagga 420  
gttctaacaa gataacacca agactgtaga tatcagttt agtgtttgct ttcttgagct 480  
ttgagagctc aggtgcccg tatcccaatg ctccagctgt agctatcacg ttgaaattag 540

cagcagttga	catcaaccga	gaaagaccaa	aatctgcaat	tttagcattt	gtattctcat	600
caagcaacac	attgctggat	gtgagggtcc	catgtatgat	gttctcctgg	aatgaaggc	660
agaacaagcc	acgggccaag	tcttgggcta	tttcatcct	tggtgggcca	atcaan	716

<210> 82  
<211> 713  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 82	ttcctaangc	ctacgactcc	tatagggcga	attggggcccg	acgtcgcatg	ctcccgcccg	60
	ccatggccgc	gggattatac	gactcactat	agggctcgag	cggccactat	gaggacagaa	120
	aaaggagtcc	ctccagttgc	tggtggtgat	gttgaagcag	gtggggagggc	tggagggaaa	180
	ctagtccatt	ttgatggacc	aatggcttt	acagctgatg	atctcttg	tgcaacagct	240
	gagatcatgg	gaaagagcac	ctatggaact	gtttataagg	ctattttgga	ggatggaagt	300
	caagttgcag	taaagagatt	gagggaaaag	atcactaaag	gtcatagaga	atttgaatca	360
	gaagtcagtg	ttcttagaaaa	aattagacac	cccaatgttt	tggctctgag	ggcctattac	420
	ttgggaccac	aagggaaaaa	gcttctgggtt	tttgattaca	tgtctaaagg	aagtcttgct	480
	tcttcctac	atggtaagtt	tcgtgtgctg	ttcttcatt	aagtgttgtg	tgtgctgttc	540
	tttaattata	atttggagtt	ttaccttagt	aatctgtata	attctaatcg	gagaacagta	600
	caaacaaaaaa	cacctaagga	acaacaccc	ancttaata	taccatatca	ataagtgaat	660
	tattttctta	ttcatcttga	tgcaggtggt	ggaactgaaa	catttatttg	atn	713

<210> 83  
<211> 712  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 83	nnnctaaggc	ccnttactca	ctatngggcg	aattggggccc	gacgtcgcat	gctccggcc	60
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gccatggccc	gcgggattgg	cttaacttga	gttcaactc	cttctcttgt	ccttaccag	120
ctagcctaac	tcactcattt	tctctcactt	ttctttctct	ttaaaataac	aatctttctg	180
gctcccttcc	taactcttgg	ggtggaaatt	ccaagaatgg	cttctttagg	cttcaaatt	240
tgatcctaga	tcataacttt	ttcactggtg	acgttcctgc	ttctttgggt	agcttaagag	300
agctcaatga	gattttccctt	agtctataata	agtttagtgg	agctataccca	aatgaaatag	360
gaacccttcc	taggcttaag	acacttgaca	tttctaataa	tgccttgaat	gggaacttgc	420
ctgctaccct	ctctaatttta	tcctcactta	cactgctgaa	tgcagagaac	aacctccttg	480
acaatcaaata	ccctcaaagt	ttaggttagat	tgcgttatct	ttctgttctg	atttttagtta	540
gaaaccaatt	tagtggacat	attccttcaa	gcattgcaaa	catttcctcg	cttagggcagc	600
ttgatttgca	ctgaataatt	tcagtggaga	aattccagtc	tcctttgcag	tcagcgcagt	660
ctaaatctct	tcaatggtn	ctacaatagn	ctctcagggt	ctgncccccc	tn	712

<210> 84  
<211> 681  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 84	ggnttcttta	gggctcaaa	atttgatcct	agatcataac	tttttcaact	ggtgacgttc	60
	ctgcttcttt	gggttagctta	agagagctca	atgagatttc	ccttagtcat	aataagttta	120
	gtggagctat	accaaataa	ataggaaccc	tttcttaggct	taagacactt	gacatttcta	180
	ataatgcctt	gaatggAAC	ttgcctgcta	ccctctctaa	tttacccctca	cttacactgc	240
	tgaatgcaga	gaacaacctc	cttgacaatc	aaatccctca	aagtttaggt	agattgcgtt	300
	atctttctgt	tctgattttg	agtagaaacc	aatttagtgg	acatattcct	tcaagcattt	360
	caaacatttc	ctcgctttagg	cagtttgatt	tgcactgaat	aatttcagtg	gagaaattcc	420
	agtctccctt	gacagtcaag	cgcagctaaa	tctcttcaat	ggttcctaca	atagcctctc	480
	agggtctgcc	cccctctgct	tggcaagaaa	tttaactcaa	gctcatttgt	gggaaatatt	540
	caactatgtt	gggtacagcc	ttcaacccca	tggcttcca	agctncatca	caagggggca	600
	ttggccccct	cctgagnggc	aaacatcacc	atcataggaa	gctaacccca	aagacataat	660
	tctcatagta	nccaggaggt	n				681

<210> 85  
<211> 639  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 85  
tcccctttgg gtcccaagta ataggccctc agagccaaaa cattggggtg tctaattttt 60  
cctagaacac tgacttctga ttcaaattct ctatgacctt tagtgatctt ttccctcaat 120  
ctctttactg caacttgact tccatcctcc aaaatagcct tataaacagt tccataggtg 180  
ctcttccca tgatectcagc tggcggcacac aagagatcat cagctgtaaa agccattgg 240  
ccatcaaaat ggacttagttt ccctccagcc tccccacctg cttcaacatc accaccagca 300  
actggaggga ctcccttttc tgcctcata gtggccgctc taccctcggt ggcttggccg 360  
tcccggcctt agatgttcat ctcttctga tcagggagaa aagcaggaca caacaaagta 420  
taatcaggac tacgaggaga actcctgcta ctatgagaat tatgtctttg ggcttagctt 480  
ctatgatgggt gatgggttga cacttcagga ggtggggcaa tgactccttgc tgatggagct 540  
tggaaagac atggggttga agggctggac ccacatagtt gaatatttcc acaaattggc 600  
tttagttaaa attctggca agcananggg ggacagaan 639

<210> 86  
<211> 661  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 86  
gaaggatgg tattttgaag agaaagaaaa gtgagagaaaa atgagtggat taggcttagct 60  
ggtaaaggac cagagaagga gttgaaactc aagttaaagcc aataaaagctt agtggaaatta 120  
gcaagactat aaggattgc tcctgtgagc aagttgtgc tgaggtcaag agactgaagc 180  
aaagggcaga aacctaaaga aagaggtatg gaacctgtaa gcctattgtt gaataactga 240  
accctctaa ggttggaaag aagtcccaa gttgaaggga ttgaaccacc aatttggta 300

tcatgaagac taagcttctg aggcccttcaa gttggccaa tttgtcggtg attcgacccc 360  
tcaaaccctt ccaaggaagc tggatcacaa taacctgtcc ctgagcacac ttgattccaa 420  
cccacccctcg gaacaagctc catagccact gtcattccag cttccgcaag aacccttctg 480  
gatcagccaa ctcttgcttg aaaagcttat cacatgtacc ttttacagat aggaggntgc 540  
ttcttccttt cactggtcta cctcttcgga ataagccaac ctaatgagaa agaaagatct 600  
ngngatagctn acttacatac tnagnncagag ataattantg naagcnnaag ttaaacntnt 660  
t 661

<210> 87  
<211> 626  
<212> DNA  
<213> soybean  
  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 87  
aattcgtggg ctacaaagga tgaacgtaaa ctatatgcac ctccagctgg ttcaggcttc 60  
atatctggct ttacttctat ctcacgcaga tcttctgttg atagtactca aaatctgtct 120  
attccttttg gtccaaagctc atacctttct gcacaggctc gagtagttga tgagtattct 180  
atgtcccaga ttatcttaca aaatgtgctt gatggagggg tcactggat gttaatagtt 240  
gtcactggtg caagccatgt tacatatgga tctagaggaa ctggagtgcc agcaagaatt 300  
tcaggaaaaaa tacaaaagaa aaaccatgca gttatattac ttgaccctga aagacaattc 360  
attcgcagag aaggagaagt tcctgttgc gatTTTTGT ggtattctgc tgcgagaccc 420  
tgttagtagaa attgcttga ccgtgctgag attgctcggtt ttatgaatgc tgctggcgg 480  
aggcgagatg ccctcccaca ggtaaaccaa caattacagt tactaatttgc tttgactgtt 540  
aatcttcttg ccccatagac cctncttcca attttagcc ctttatgtcc tctcattcct 600  
agngggataaa gggtttgggg gnggtg 626

<210> 88  
<211> 627  
<212> DNA  
<213> soybean  
  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 88  
tgaaaaactg aaggaccaaa ttaaatctaa aaaataaata aattaaaaga ctaaaaaata 60  
aatctatcca aaattaaaag gtttattctt ggaagtaatg aaatgtatcc tgactctttg 120  
aagaatgcac tactataatg aaagagtagg tggagagagg ggataataaa atcccactaa 180  
ataacatcca tgactatcac tataaaaaaa aatattatta ttaagataag aagaattatc 240  
taacttgaat aagagactac taccaaagtg agaaaaaggt cttataacat agagttttc 300  
aagtttacct ataaaaacttg taataagatt tgtttccaa ccatctaatt ttttatttagt 360  
gtggactgca taaaaaaaaat atagtaacaa gaaactacta aattagactt tttgaactat 420  
tcattgtatg gctgccatga aacctacctg cctgggggg tgggtccac gtaagactgt 480  
aagagggagg agggaaagcac tagtcacaca ccggcgacg tttagcgaggc aatgttccta 540  
gattgaaacg gagaaggtga ttagagggc ggaaatctca aagcagacac aggcaactaa 600  
tttatcgccct ctttcctcat tcgctta 627

<210> 89  
<211> 782  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 89  
cacataatta acaataaagt catcttctat tatatatttt ttcttcttaa attacatgat 60  
agtatttcat cattatttga caataatgat atttttatct cataaaatatt attttgttt 120  
aaaaatattc atagcacaca cgagttttt atatcaacaa agaggtatca cttagttgg 180  
tcaatttggc ctaactttta gacaatgtcg tataatggaa ttgaattggaa atttggcagt 240  
atatatttta ctttttgc ctttatttc aatcaaatta gagtagacgc ctcgtattat 300  
tggcatacat ggatattggc tcggcacctg tgtttcagac ctgagtcaca tctgactcgg 360  
atcgattttta tcttacatga aaattccaaa ataatgaaag atatggtaat tggcaccatg 420  
taactctatg gacaccaatg ctgcacgtag agctctaaat ttgaggcctt ctatataatg 480  
tttgcgtgac tatgtaaatt atcaatatca ttatatttt ttgcgaccac gaaatatacg 540  
aatttattat tgaacacaaa aagtagagtg tatattttaa gtctaggatt ttatgagagg 600

caaaaataag aataacctct tgatatattt tctggatac actttctta ttatataattt 660  
tttaataatg gattataatt tattggaaac aatcaaatta tangggaaaa ttcattggaa 720  
taaaagaang aaatttaaaa aaaaatataa ttttaataa atttaagtaa taaaatcct 780  
tt 782

<210> 90  
<211> 160  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 90  
tggttagat gtgtataaga gacagttgcc ccacctcctg aagtgtcaaa acatcaccat 60  
cataggaagc taagcaccaa agacataatt ctcatagtag caggagttct cctcgtagtc 120  
ctgattatac tttgttgtgt cctgcttttc tgcctgatca 160

<210> 91  
<211> 779  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 91  
tgctccggc gcatggccgn gggattggct taacttgagt ttcaactcct tctctggtcc 60  
tttaccagct agcctaactc actcatttc tctcactttt ctttctcttc aaaataacaa 120  
tcttnntggc tcccttncta actgtgggg gggaaatanc aaggnggct ttaggctgca 180  
aaatttgate ctagatcata acttttcac tggtgacggt cctgcttctt tggtagctt 240  
aagagagctc aatgagattt cccttagtca taataagttt agtggagcta taccaaatga 300  
aataggaacc ctttcttaggc ttaagacact tgacatttct aataatgcct tgaatggaa 360  
cttgccctgct accctctcta atttacactc acttacactg ctgaatgcag agaacaacct 420  
ccttgacaat caaatccctc aaagtttagg tagattgcgt actcttcctt gttccgattt 480  
tgagtagaaa ccaatttagt ggacatattc cttcaagcat ngcnnacatt tcctcgctta 540  
ggcagcttga ttgtcactga ataatttcag gtggagaaat tncagtctnc tttgacagtc 600

agcgcaagtct aaatcttctt caatggttnc tacaataggc ctctcagggc ctggccccc 660  
tttgnttggc caagggaaant taacttaagc ttatggng gggaaanatt caactatggg 720  
gggacncggc cctttaaacc ccagggnntt tcccaaggg ngcanttgt 779

<210> 92  
<211> 743  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 92  
ttggcttaac ttgagttca actccttctc tggccttta ccagctagcc taactcactc 60  
atttctctc actttcttt ctcttcaaaa taacaatctt tctggctccc ttcctaactc 120  
ttgggggtggg aattccaaga atggcttctt taggcttcaa aatttgatcc tagatcataa 180  
cttttcact ggtgacgttc ctgcttctt ggtagctta agagagctca atgagatttc 240  
ccttagtcat aataagttta gtggagctat accaaatgaa ataggaaccc tttctaggct 300  
taagacactt gacatttcta ataatgcctt gaatggaaac ttgcctgcta ccctctctaa 360  
tttatcctca cttacactgc tgaatgcaga gaacaacctc cttgacaatc aaatccctca 420  
aagtttaggt agattgcgta atcttctgt tctgatttg agtagaaacc aatttagtgg 480  
acatattcct tcaaggcattt caaacatttc ctcgcttagg cagcttgatt tgtcactgaa 540  
taatttcagt ggagaaaattt cagtctcctt tgacagtcag cgtagtctaa atctttcaa 600  
tgtttcctac aatagcctct cangttctgn cccccctctg cttgccaaga aattaactca 660  
agctcatttg tgggaaatat tcaactatgt gggacaggcc ttcaacccca ngcttncca 720  
agcttcatca caaggggcat ·tgg 743

<210> 93  
<211> 742  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 93

ttaacttgag tttcaactcc ttctctggc ctttaccagg tagcctaact cactcattt	60
ctctcacttt tctttctctt caaaataaca atctttctgg ctcccttcct aactcttggg	120
gtgggaattc caagaatggc ttcttaggc ttcaaaattt gatcctagat cataactttt	180
tcactggtga cgttcctgct tctttgggtt gcttaagaga gctcaatgag atttccctta	240
gtcataataa gtttaatgga gctgtaccaa atgaaatagg aaccctttct aggcttaaga	300
cacttgacat ttctaataat gccttgaatg ggaacttgcc tgctaccctc tctaatttat	360
cctcaactac actgctgaat gcagagaaca acctccttga caatcaaatc cctcaaagtt	420
taggttagatt gcgtaatctt tctgttctga ttttgggttag aaaccaattt agtggacata	480
ttccttcaag cattgcaaac atttcctcgc ttaggcagct tgatttgac tgaataattt	540
cagtggagaa attccagtct ctttgacag tcaagcgcaa gtctaaatct cttcaatgtt	600
tcctacaata gcctctcang gtctgncccc cctctgcttg ccaagaaatt taactcaagc	660
tcatttgtgg gaaatattca actatgtggg acagnccctc aaccccattgt ttnccaagc	720
ttcataacaag gagcatggcc ct	742

<210> 94  
<211> 741  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 94 cttaacttga gtttcaactc cttctctgtt ccttaccagg cttagcctaac tcactcattt	60
tctctcactt ttctttctct tcaaaataac aatctttctg gctcccttcct taactcttgg	120
ggtgggaattt ccaagaatgg cttctttagg cttcaaaattt tgatcctaga tcataacttt	180
ttcactggtg acgttcctgc ttctttgggtt agcttaagag agctcaatga gatttccctt	240
agtcataataa agtttagtgg agctatacca aatgaaatag gaacccttgc taggcttaag	300
acacttgaca tttctaataa tgccttgaat gggacttgc ctgctaccct ctctaattta	360
tcctcaactta cactgctgaa tgcagagaac aaccccttgc acaatcaaatt ccctcaaagt	420
ttaggttagat tgcgtaatctt ttctgttctg attttgagta gaaaccaattt tagtggacat	480
atcccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgca ctgaataattt	540
tcagtggaga aattccagtc tcctttgaca gtcaagcgca gtctaaatctt cttcaatgtt	600

tcctacaata gcctctcang ttctgcccc ctctgcttgc caagaaattt aactcaagct 660  
catttgtggg aaatattcaa ctatgtggga caggccttca accccatgtt tttccaagct 720  
ccatcacaag gggcattgcc t 741

<210> 95  
<211> 743  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 95  
cttaacttga gtttcaactc cttctcttgtt cctttaccag ctggctaac tcactcattt 60  
tctctcactt ttctttctct tcaaaataac aatcttctg gctcccttcc taactcttgg 120  
ggtgggaatt ccaagaatgg cttctttagg cttcaaaatt tgatcctaga tcataacttt 180  
ttcactggtg acgttccctgc ttctttgggt agcttaagag agctcaatga gattccctt 240  
agtcatataata agtttagtgg agctatacca aatgaaatag gaacccttgc taggcttaag 300  
acacttgaca tttctaataa tgccttgaat gggacttgc ctgctaccct ctctaattta 360  
tcctcactta cactgctgaa tgcagagaac aaccccttg acaatcaaat ccctcaaagt 420  
ttaggttagat tgcgtaatct ttctgttctg atttttagta gaaaccaatt tagggacat 480  
attccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgca ctgaaaattt 540  
tcaaggggag aaatncagt ctcccttgac agtcaagcgc aagtctaaat ctcttcaatg 600  
gttcctacaa taagcctctc anggtctgnc ccccctctgc ttgncaagaa aattaactca 660  
agctcatttg gggaaatat tcaactatgn gggacagncc ttcaaccat gtttccaag 720  
ctccatacan gagcatggcc cnt 743

<210> 96  
<211> 742  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 96

cttaacttga gtttcaactc cttctcttgtt ccttaccag cttagcctaac tcactcattt	60
tctctcactt ttctttctct tcaaaataac aatctttctg gctcccttcc taactcttgg	120
ggtgggaatt ccaagaatgg cttctttagg cttcaaaatt tgatcctaga tcataacttt	180
ttcactggtg acgttcctgc ttcttgggt agcttaagag agctcaatga gattccctt	240
agtctataata agtttagtgg agctatacca aatgaaatag gaacccttc taggcttaag	300
acacttgaca tttcttaataa tgccttgaat ggaaacctgc ctgctaccct ctctaattta	360
tcctcaactt cactgctgaa tgcagagaac aaccccttg acaatcaaat ccctcaaagt	420
tttaggtat tgcgtaatct ttctgttctg attttgagta gaaaccaatt tagggacat	480
atcccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgc actgaaataat	540
ttcaggggga gaaattccag tctccttga cagtcagcgc aagtctaaat ctcttcaatg	600
gttcctacaa tagcctctca ngtctgncc cccctctgct tgncaagaaa ttaactcaag	660
ctcatttgtg ggaaatattc aactatngg gacaggcctt caacccatgt tttccaagc	720
ttcataacaag gagtaatggc ct	742

<210> 97  
<211> 716  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

ggacagaaaa aggagtcctt ccagttgctg gtgggtatgt tgaagcaggt gggaggctg	60
gagggaaact agtccatttt gatggaccaa tggctttac agctgtatgt ctcttgcgt	120
caacagctga gatcatggga aagagcacct atggaaactgt ttataaggct atttggagg	180
atggaaatca agttgcagta aagagattga gggaaaagat cactaaaggt catagagaat	240
ttgaatcaga agtcagtgtt ctagaaaaaa tttagacaccc caatgtttt gctctgaggg	300
cctattactt gggacccaaa gggaaaagc ttctggttt tgattacatg tctaaaggaa	360
gtcttgcttc tttcctacat ggtaagttc gtgtgctgnt ctgttcaatg agtntgggn	420
gggctggct ttaattataa ttggagtt taccttanta atctgtataa ttctaatcgg	480
agacaagtca aacaaaaacc ctaaggaaca acnccttanc tttaatatnc catatcaata	540
angngaatta ttttnttggt tcatttgatg cnnggggng gnacntnaaa ctnatttg	600

ntgggccacn anggnnnnaa aannncacaa anantggnc cngnggnttn gnnntgcctt  
tantnccang anaaaacatna tacanggnan ctncntcnn naangtnntn gttngn 660  
716

<210> 98  
<211> 616  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 98  
ggacagaaaa aggagtccct ccagttgctg gtgggtatgt tgaagcaggt ggggaggctg 60  
gagggaaaact agtccatttt gatggaccaa tggctttac agctgatgat ctcttggtg 120  
caacagctga gatcatggga aagagcacct atgaaactgt ttataaggct attttggagg 180  
atgaaagtca agttgcagta aagagattga gggaaaagat cactaaagggt catagagaat 240  
ttgaatcaga agtcagtgtt ctagaaaaaa ttagacaccc caatgtttg gctctgaggg 300  
cctattactt gggaccaaaa gggaaaaagc ttctggttt tgattacatg tctaaaggaa 360  
gtcttgcttc tttcctacat ggtaagttc gtgtgctgtt ctttcattaa gtgttggtg 420  
tgctgttctt taattataat ttggagnttt accttagtaa tctgtataat tctaattcgga 480  
gaacagtcaa acaaaacacc taaggaacaa caccttagct ttaatatcca tatcaataag 540  
tgaatatttt cttggtcatc ttgatgcagg nggnggaact tgaacaatca ttgattggnc 600  
caccanggat gaaaat 616

<210> 99  
<211> 532  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 99  
actggctgtg actgatctct ctggtctaatt ctcttccagc tgctggagaa cttgatgaac 60  
ttctggtcgt gctgatggag aaggatcaac acagtgcacaa gcgagcttca acgtgttttag 120  
caactcgtcg ccaactgtgg atgcatctct catcaagtct gcatcaaaaa cctcatttgt 180

ccactcctct ttgacaactg aggcaaccca ctgaggcaaa tctagtcacat tcata	240
ccagggtgat ttcctcgta ggagttctaa caagataaca ccaagactgt agatatcagt	300
tttagtgttt gctttcttga gctttgagag ctcaggtgcc cggtatccc atgctccagc	360
tgtagctatc acgttggaat tagcagcagt tgacatcaac cgagaaagac caaaaatctgc	420
aatttttagca tttgtattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat	480
gatgttctcc tggaaatgaa ggcggAACAA gccacgggccc aagtcttgc ct	532

<210> 100  
<211> 568  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 100	
tatgaggaca gaaanttnag tccctccagt tgctgggtgatgttgaag caggtgggga	60
ggctggaggg aaactagtcc attttgatgg accaatggct tttacagctg atgatcttt	120
gtgtgcaaca gctgagatca tggaaagag cacctatgga actgtttata aggctatttt	180
ggaggatgga agtcaagttg cagtaaagag attgaggaa aagatcacta aaggcatag	240
agaatttcaa tcagaagtca gtgttctagg aaaaatttgc caccggatg tttggctct	300
gagggcctat tactgggac ccaaaggaa aaagcttctg gttttgatt acatgtctaa	360
aggaagtctt gcttcttcc tacatggtaa gtttgcgtg ctgttcttc attaagtgtt	420
gtgtgtgctg ttcttaatt ataatttggaa gtttacatt agtaatctgt ataattctaa	480
tcggagaaca gtcaaacaaa aaccctaagg aacacacccatctttaatataccatataa	540
taagngaatn atttcttggatcatcttgc	568

<210> 101  
<211> 678  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 101	
ggtggactg gctgtgactg atctctctgg tctaatctct tccagctgct ggagaacttg	60

atgaaccttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt	120
gtttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc	180
atttgtccac tcctcttga caactgaggc aaccactga ggcaaattcta gtccattcat	240
agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgttagat	300
atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc	360
tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagacccaa	420
atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgaggttccc	480
atgtatgatg ttctcctggg aatgaaggca gaacaagcca cgggccaagt cttngctat	540
tttcatcctt ggtggccaat caatgaatgg ttcagtnca ccacctgcat caagatgaac	600
aagaaaataa ttcaacttatt gatatggnat attaaaagct aagggtggc ccctaggggg	660
tttqqtqqaa ccggncnn	678

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<210> 102  
<211> 673  
<212> DNA  
<213> soybean
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<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
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<400> 102 ggtgggactg gctgtgactg atctctctgg tctaattctt tccagctgct ggagaacttg 60  
atgaacttct ggtcggtctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt 120  
gttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc 180  
atttgtccac tcctcttga caactgaggc aacccactga ggcaaattctt gtccattcat 240  
agacacccca ggtgatttcc tcgttaggat ttctaacaag ataacaccaa gactgttagat 300  
atcagttta gtgtttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc 360  
tccagctgta gctatcacgt tggaatttagc agcagttgac atcaaccgag aaagacccaaa 420  
atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgagggtccc 480  
atgtatgatg ttctcctggg aatgaaggca gaacaagcca cggccaagtc ttgngctatt 540  
ttcatccttg ttggccaatc aatgaatggt tcaagttccc cacctgcatt aagatgaaca 600  
aaaaataat tcacttaatq qatatggnat attaaagcta aggggtggtc cntaggggtt 660

ttgggttgnc cng	673
<210> 103	
<211> 665	
<212> DNA	
<213> soybean	
<220>	
<221> misc_feature	
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)	
<400> 103	
ggtgttgactg gctgtgactg atctctctgg tctaattcttcc tccagctgct ggagaacttg	60
atgaacttcttgc ggtcgctgatggagaagg atcaacacag tgcaaagcga gcttcaacgt	120
gttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc	180
atttgcac tcctctttga caactgaggc aaccactga ggcaaatactta gtccattcat	240
agacacccca ggtgatttcc tcgttaggat ttctacaag ataacaccaa gactgttagat	300
atcagtttta gtgttgctt tcttgagctt tgagagctca ggtgcccggat atccaatgc	360
tccagctgta gctatcacgt tggaaattgc agcagttgac atcaaccgag aaagacaaaa	420
atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgagggtccc	480
atgtatgatg tctnctggaa atgaaggcan aacaagccac ggccaagtct tggctattt	540
tcatcattgt ggncaatcaa tgaatggta anttcccccc ctgcttcaag atgaacaaga	600
aaataattca cttattggtt gggntatnaa actaagggn gnccctaggg gntngntgn	660
ccnct	665
<210> 104	
<211> 671	
<212> DNA	
<213> soybean	
<220>	
<221> misc_feature	
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)	
<400> 104	
ggtgttgactg gctgtgactg atctctctgg tctaattcttcc tccagctgct ggagaacttg	60
atgaacttcttgc ggtcgctgatggagaagg atcaacacag tgcaaagcga gcttcaacgt	120
gttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc	180
atttgcac tcctctttga caactgaggc aaccactga ggcaaatactta gtccattcat	240

agacacccca ggtgatttc tcgttaggag ttctaacaaag ataacaccaa gactgtagat 300  
atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc 360  
tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagaccaa 420  
atctgcaatt ttagcatttgc tattctcatc aagcaacaca ttgctggatg tgagggtccc 480  
atgtatgatg ttctcctggg aatgaaggca gaacaagcca cggccaagtc ttngngctatt 540  
ttcatccttg gtggccaatc aatgaatgtt tcagttccac cacctgcac aagatgaaca 600  
agaaaataat tcacttatttgc atatggnata tttaaagctaa ggggtggtcc ntagggggtt 660  
tnngntggnc c 671

<210> 105  
<211> 670  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 105  
ggtgggactg gctgtgactg atctctctgg tctaattcttcc tccagctgct ggagaacttg 60  
atgaacttcttcc ggtcgctgatggagaagg atcaacacag tgcaaagcga gcttcaacgt 120  
gtttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcac caaaaacctc 180  
atttgcac ccctctttga caactgaggc aaccactgttgc ggcaaatttttgc gtcatttttttgc 240  
agacacccca ggtgatttc tcgttaggag ttctaacaaag ataacaccaa gactgtagat 300  
atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc 360  
tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagaccaa 420  
atctgcaatt ttagcatttgc tattctcatc aagcaacaca ttgctggatg tgagggtccc 480  
atgtatgatg ttctcctggg aatgaaggca gaacaagcca cgggccaagtc cttgggctat 540  
ttcatccttg ggtggccaa tcaatgaatg gttcaanttc ancacctgcn tcaagangaa 600  
caagaaaata attncntatg gnnnggatn naaactaagg ggnngncctt ggggtntnngn 660  
nnngnccggcn 670

<210> 106  
<211> 662  
<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 106

ggtgtggactg gctgtgactg atctctctgg tctaattcttcc tccagctgct ggagaacttg	60
atgaacttctt ggtcgctgatg atggagaagg atcaacacag tgcaaagcga gcttcaacgt	120
gttttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc	180
atttgcac ccctctttga caactgaggc aaccactga ggcaaatactta gtccattcat	240
agacacccccca ggtgatttcc tcgttaggag ttctaaacaag ataacaccaa gactgttagat	300
atcagtttta gtgttgctt tcttgagctt tgagagctca ggtgcccggt atccaatgc	360
tccagctgta gctatcacgt tgaaatttagc agcagttgac atcaaccgag aaagacccaaa	420
atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgaggttcca	480
tgtatgatgt tctnctggaa atgaaggcag aacaagccac gggccaagtc ttngctatt	540
tcatcattgtt gggcaatcaa tgaatgttta anttccncac ctgcttnaga ggaccaagaa	600
aanattactt attggntggg tattaaagct aagggggggn cctaagggn tttggnnngc	660
cc	662

<210> 107

<211> 792

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 107

tatttacaac tagtgttatac ggagaatgaa aaattgaaga ataataagtt cagctataat	60
aaactcgagg gagaaaaaac aaagaaattc atgataaata gatataactt attaaattta	120
aggggtgtat ttgcacaccc tgaattatac agattcttat atctttgaga aaataattaa	180
attggaaaaa aagagataat gactgattga gattgcctc agaattgttc gtttaatat	240
tgttacgaat ctaatggntt tatcctgaaa gatgctcaca agtattgagg gactaataaa	300
ttgnttataa actactacta aatgagatga gactttaagg ngtactgaag caatatcatt	360
taaaaaatga ctactcgcat ttgngttgag aaaatttatt ttcatgaaag naaattttnt	420

ccntttang ataaagccat tnncttaac cnangggga nataaaatgg cccccnttca 480  
taaaaaacct accanctata taaatggatn tataccaacc ttctangca ccatgccatt 540  
ggatnggng gaattaaatt naaaangntt gcnttggaat gggtaaaaaa ttccaaaact 600  
tnaaccccc ccacaatttt agtggccacn gnaatattnn ttanccgntg gncttttc 660  
caggaaaacg acccgtaacc aaanggggnn aaaaggaaaa gggagatgga ttgcntgnng 720  
gtntgaggct catcccnatt cccaaacatg ttnggnccc aaaaccgaag tncccctgga 780  
ccatggatgn cn 792

<210> 108  
<211> 573  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 108  
gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatg 60  
aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt 120  
tagcaactcg tcgccaactg tggatgcatt tctcatcaag tctgcattcaa aaaccttatt 180  
tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatcttagtc cattcataga 240  
caccccaggt gatccctcg ttaggagttc taacaagata acaccaagac tgtagatatc 300  
agtttagtg tttgcttct tgagcttga gagctcaggt gcccggatc caatgctcca 360  
gctgtagcta tcacgttggaa attagcagca gttgacatca acccgagaaaa gaccaaaatt 420  
gcaatttagc anttgnattc ttatnaacaa cacaatggtt ggatngang gtnccaagga 480  
ttgangttt ctggaaatga aaggganaaa caagccccgg gccaaagntt ggggttattt 540  
tnaancctgg nggncaaan aaangaaagg ttn 573

<210> 109  
<211> 673  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 109  
gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatg 60  
aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt 120  
tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcatcaa aaacctcatt 180  
tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatctagtc cattcataga 240  
caccccaggt gatttcctcg ttaggagttc taacaagata acaccaagac tgtagatatc 300  
agtttttagtg tttgctttct tgagctttg agaagcttag gtgcccggta tcccaaatgc 360  
ttccagctgt agcttatcac cgttggaaat taagcagcaa gttggacatt caacccggag 420  
naaaaagaccc aaaaattttg caaatttttta agcaatttng gnanttcttn aatcaaggcc 480  
aaccaccaat tggnttggga atgggttggaaag ggtttccccca atggtaatttgaaggggtttc 540  
ttccctnnggg gaaaaatggaa aggggcaana aaacaaaggc ccaacnngggg ccccaaaggt 600  
nttttgggggg ccttattttt tncnaatncc ctttgggnngg ggncccaaattt tcnaaantgg 660  
aaattggntt tnn 673

<210> 110  
<211> 564  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 110  
actggctgtg actgatctct ctggtctaattt ctcttccagc tgctggagaa cttgatgaac 60  
ttctggtcgt gctgatggag aaggatcaac acagtgcggc gcgagcttca acgtgttttag 120  
caactcgtcg ccaactgtgg atgcatttctt catcaagtctt gcatcaaaaaa cctcattttgt 180  
ccactcctct ttgacaactg aggcaacccca ctgaggcaaa tcttagtccat tcatagacac 240  
cccaagggtat ttccctcgta ggagttctaa caagataaca ccaagactgt agatatcgt 300  
tttagtgttt gctttcttga gctttgagag ctcaggtgcc cggtatccca atgctccagc 360  
tgttagctatc acgttgaaat tagcagcagt tgacatcaac ccgagaaaga ccaaaatctg 420  
caatttttagc atttgttatttcc tcatcaagca acacattgtt ggtatgtgagg ttcccatgtt 480  
tcatgtttctc ctggaaatga aggcagaaca agccacggcc aagcttggct atttcatttctt 540  
tgtggccaat caatgaatgg tcat 564

<210> 111  
<211> 456  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 111  
actatgagga cagaaaaagg agtccctcca gttgctggtg gtgatgtta agcgggtggg 60  
gaggctggag ggaaactagt ccattttat ggaccaatgg cttttacagc tcatgtatctc 120  
ttgtgtgcaa cagctgagat catggaaag agcacctatg gaactgtttta taaggctatt 180  
ttggaggatg gaagtcaagt tgcagtaaag agattgaggg aaaagatcac taaaggtcat 240  
agagaatttg aatcanaagt cagtgttcta ggaaaaatta nacaccccaa tgtttggtt 300  
ntgaggccta ttacttggga cccaaagggg aaaagctnt ggttttttagt tcatttntaa 360  
aggaagtctt gcttnnncc tacatggnaa gtttcggggc tgtcttnat taanggtngg 420  
gnngngctgnn ttttaattata attnngngtt tacctt 456

<210> 112  
<211> 592  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 112  
actatgagga cagaaaaagg agtccctcca gttgctggtg gtgatgtta agcaggtggg 60  
gaggctggag ggaaactagt ccattttat ggaccaatgg cttttacagc tcatgtatctc 120  
ttgtgtgcaa cagctgagat catggaaag agcacctatg gaactgtttta taaggctatt 180  
ttggaggatg gaagtcaagt tgcagtaaag agattgaggg aaaagatcac taaaggtcat 240  
agagaatttg aatcagaagt cagtgttcta ggaaaaatta gacaccccaa tgtttggct 300  
ctgagggcct attacttggg acccaaaggg gaaaagcttc tggtttttagt ttacatgtct 360  
aaaggaagtc ttgcttctt cctacatggt aagttcgtg tgctgttctt tcattaaatgt 420  
ttgggtgtgc tggctttaa ttataatttg gagttacct tannaatctg gataattcta 480

atcgaggagaac agncaaaca aancctaag gaacaaccct tancttaat atccatatca 540  
ataagngaan tatttcttgg tcatcttgat gcaggggggg gnactgaaca tt 592

<210> 113  
<211> 460  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 113  
gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatg 60  
aacttctggc cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt 120  
tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcattcaa aaacctcatt 180  
tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatcttagtc cattcataga 240  
cacccccaggt gatttcctcg ttaggagttc taacaagata acaccaagac tgtagatatc 300  
agtttttagtg tttgctttct tgagctttga gagctcaggt gcccggtatc ccaatgcttc 360  
agctgttagct atcacgttgg aattagcagc agttgacatc aaccgagaaa gaccaaaatc 420  
tgcaatttta gcatttgnat tctcattaaa caacacaatg 460

<210> 114  
<211> 566  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 114  
gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatg 60  
aacttctggc cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt 120  
tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcattcaa aaacctcatt 180  
tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatcttagtc cattcataga 240  
cnccccaggt gatttcntcg ttaggagtn taacaagata acaccaagac tgtagatatc 300  
agtttttagtg tttgctttct tgagctttga gagttaaggg ncccgantc ccanngntcn 360  
agttgnagtt atancgttgg aattagcagn agttgcntca accgaaaaag accaaaatct 420

gaatttttagc atttgtttt catcaagcaa cacattgntg gatgngaggt cccatgtatg	480
atgttctcct gggaaatgaag gcaaacaagc ccggggccaag gcttgggcta ttttaatcct	540
tggtgccaa acaatgaaag gttnat	566
<210> 115	
<211> 16	
<212> DNA	
<213> soybean	
<400> 115	
gactgcgtac caattc	16
<210> 116	
<211> 16	
<212> DNA	
<213> soybean	
<400> 116	
gatgagtcct gagtaa	16
<210> 117	
<211> 22	
<212> DNA	
<213> soybean	
<400> 117	
gggttcaga taaccgtggt cg	22
<210> 118	
<211> 25	
<212> DNA	
<213> soybean	
<400> 118	
ttgcagatat tttagttgat tggcc	25
<210> 119	
<211> 24	
<212> DNA	
<213> soybean	
<400> 119	
agttgattgg ctcaaaccat ggcc	24
<210> 120	
<211> 20	
<212> DNA	
<213> soybean	

<400> 120  
ttgcgtgtga tcggattac 20

<210> 121  
<211> 20  
<212> DNA  
<213> soybean

<400> 121  
tacctgagtt ctctcaagtc 20

<210> 122  
<211> 252  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 122  
gattnagact gcgctgactn tcaaaggaga ctggaaatttc tccactgaaa ttattcagtg 60  
acaaatcaag ctgcctaagc gaggaaatgt ttgcaatgct tgaaggata tgtccactaa 120  
attggtttct actcaaaatc agaacagaaa gattacgcaa tctacctaaa ctttgaggga 180  
tttgattgtc aaggaggttg ttctctgcat tcagcagtgt aagtgaggat aaatttagaga 240  
ggtagcagg ca 252